Version 2.0

User Manual

Tablet PCs

TT13

the rugged world of IT®

Product Portfolio

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Germany

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ABOUT US

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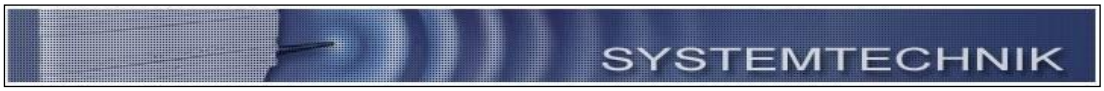
ads-tec GmbH implements full automation solutions from planning to commissioning and is specialized in handling and material handling technologies.

The data systems division develops and produces PC based solutions and offers a broad range of industrial PCs, thin clients and embedded systems.



ads-tec is specialized in modifying and optimizing embedded operating systems and develops software tools to complement its hardware platforms.

1 REMARKS

1.1 RELEVANT DATA COMMUNICATION WITH THE DEVICE

The following documents are essential for setting up and operating this device:

USER MANUAL:

Contains information for installation, commissioning and operating the device along with technical data of the device hardware.

1.2 DESCRIPTION OF THE WARNING SYMBOLS USED IN THIS GUIDE

Warning:

The “Warning” symbol precedes warnings on uses or operations that might either lead to personal injury and/or hazards, or to any hardware and software damages.

Note:

This Symbol indicates special notes, terms and/or conditions that strictly need to be observed to ensure optimised and/or zero-defect operations. It also precedes tips and suggestions for efficient unit implementation and software optimisation.

1.3 DATA, IMAGES, AMENDMENTS AND VARIATIONS

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1.6 CERTIFICATIONS / TESTS

The TT13 system has the following certifications:

CE compatibility	EN 61000-6-3:2007 Electromagnetive Emission, Klasse B EN 55022:2006 Electromagnetive Emission
	EN 61000-6-2:2005 Electromagnetive Emission EN55024:1998+A1:2001+A2:2003 Electromagnetive Emission
UL/cUL201	USL/CNL E217133
GOST-R certificate	Device complies with standard
WLAN certificates for 802.11 a/b/g for the	<u>EU countries (ETSI)</u> 2,400 MHz – 2,483.5 MHz 5,150 MHz – 5,350 MHz 5,470 MHz – 5,725 MHz
	<u>USA / Canada (FCC)</u> 2,400 MHz - 2,483.5 MHz 5,150 MHz - 5,350 MHz 5.725 MHz – 5.850 MHz
	<u>Japan</u> 2,400 MHz – 2,483.5 MHz 5,150 MHz – 5,350 MHz 5,470 MHz – 5,725 MHz
	<u>Australia</u> 2,400 MHz – 2,483.5 MHz 5,150 MHz – 5,350 MHz 5,470 MHz – 5,725 MHz <u>Russia</u> 2,400 MHz – 2,483.5 MHz

Note:

A respective conformity declaration for the authority in charge is available at the manufacturer and may be viewed on request.

All connected components, as well as cable connections must also meet these requirements for compliance with the EMC legislation. For this reason, screened bus and LAN cables including screened connectors must be used and installed according to the instructions in this user manual.

1.7 SCOPE OF DELIVERY

The following components are included in the scope of delivery:

- 1 x device
- 1 x 20V DC power supply unit
- 2 x batteries

AS AN OPTION:

- 1 x DVD drive, external
- 1 x transport case

2 OPERATING INSTRUCTIONS

This device contains electrical voltages and extremely sensitive components. The manufacturer, or a service partner authorised by the manufacturer, should be consulted if you plan to make any modifications. For this type of work, the device must be switched off at the mains and the power lead must be disconnected. Suitable measures for avoiding electrostatic discharge towards parts of the components when touching the equipment must be taken. If the device is opened by an unauthorised person, hazards for the user might arise and any warranty claim will cease.

General instructions:

- All users must read this manual and have access to it at all times.
- Installation, commissioning and operation may only be carried out by trained and qualified staff.
- The security instructions and the manual itself must be observed by all persons who work with this device.
- At the location of use the valid guidelines and regulations for accident prevention must be observed.
- The manual contains the most important instructions on how to use this device in a safe way.
- Appropriate storage, proper transport, installation and commissioning, as well as careful operation are prerequisites for ensuring safe and proper operation of the device.

Warning:

Any leads (e.g. power leads, interface cables) may only be connected if the device is switched off in order to avoid damaging the device.

2.1 OPERATING LOCATION

This device is designed for professional and portable use indoors and outdoors. You have to take care that the environmental conditions specified in the technical data specification are met.

Warning:

The device may only be switched on after acclimatising to the ambient temperature in order to avoid condensate accumulation. The same applies if the device has previously been exposed to extreme temperature variations.

To avoid overheating in operation: The device must not be exposed to direct radiation by sunlight or any other light or heat source.

2.2 DAMAGES DUE TO IMPROPER USE

Should the service system have evident signs of damages incurred e.g. due to wrong operation or storage conditions or due to improper unit use, the unit must be decommissioned or scrapped. Ensure that it is safe from accidental re-implementation.

2.3 WARRANTY / REPAIRS

During the unit warranty period, any repairs thereto must strictly be conducted solely by the manufacturer or by service personnel that has been duly authorised by the manufacturer.

2.4 HANDLING AND PROPER DISPOSAL OF LITHIUM BATTERIES

This device contains a lithium battery to supply the systemclock until there is no power supply connected. Depending on exposure, the battery has a lifetime of 3-5 years.

Note:
High thermal exposure will age the battery faster.

Warning:
By using the wrong types of batteries, there is acute danger of explosion.

Warning:
Lithium batteries should not be exposed to fire, soldered, recharged, opened, short-circuited, reversed or heated above 100 °C and they should be disposed of properly as well as protected against sunlight, moisture and condensation.

The lithium battery can only be replaced by the same type or a type recommended by the manufacturer.

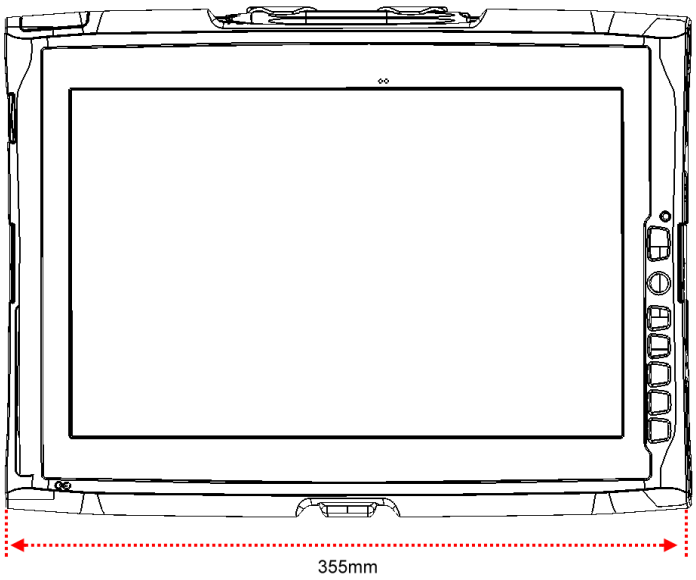
The used lithium battery should be disposed of in accordance with local legal regulations.

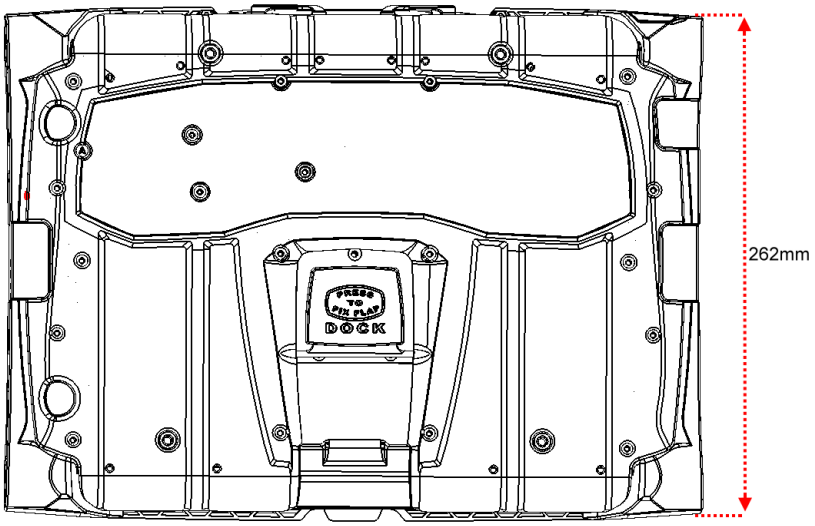
2.5 SAFETY INSTRUCTIONS

Warning:
All unit assembly operations must be strictly conducted only under safe, secure and zero-potential conditions.

Special Note:
When handling parts and components susceptible to electrical discharge, please accurately observe all the relevant safety provisions.
(DIN EN 61340-5-1 / DIN EN 61340-5-2 refers)

2.6 EXTERNAL DEVICE DIMENSIONS





3 COMMISSIONING

The power supply connection and interfaces of this device are installed at the side of case. All supply leads and all required data leads have to be connected before starting commissioning.

Warning:

The device must be switched off before connecting or disconnecting any cables in order to prevent damage to the electronics!

The device may only be switched on after acclimatising to the ambient temperature in order to avoid condensate accumulation. Make sure to meet the permissible voltage requirements for this device.

After switching off and before switching on you must wait for at least 10 seconds.

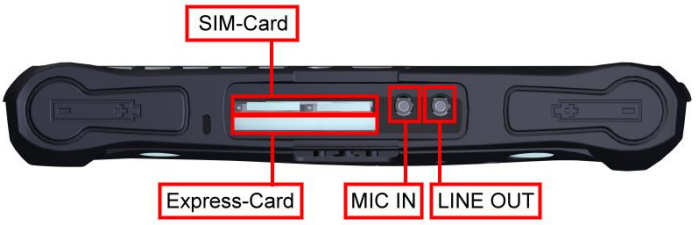
Note:

The screen of a data cable must always be connected with the connector housing (EMC).

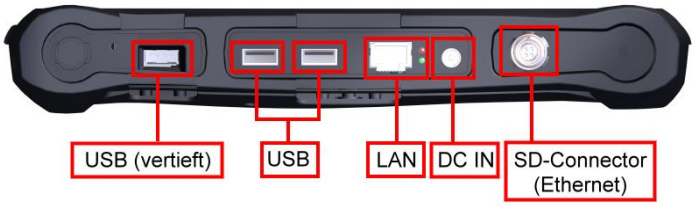
Under the embedded operating system, interfaces must explicitly be enabled and required drivers must be installed in order to be able to use them.

3.1 AVAILABLE INTERFACES

Schnittstellenübersicht Rechts



Schnittstellenübersicht Links



3.2 READINESS FOR OPERATION CHECKS

Accurately check the unit for any hidden damages possibly incurred during improper transport and/or handling or wrong operation site and/or storage conditions (e.g. smoke emissions or formation by the unit, etc.). If any damages are found, the unit must be decommissioned or scrapped. Ensure that it is safe from accidental re-implementation.

3.3 TOUCHSCREEN

The control system is equipped with an analogue, resistive touchscreen. The driver software required for its use is already integrated in the respective operating system.

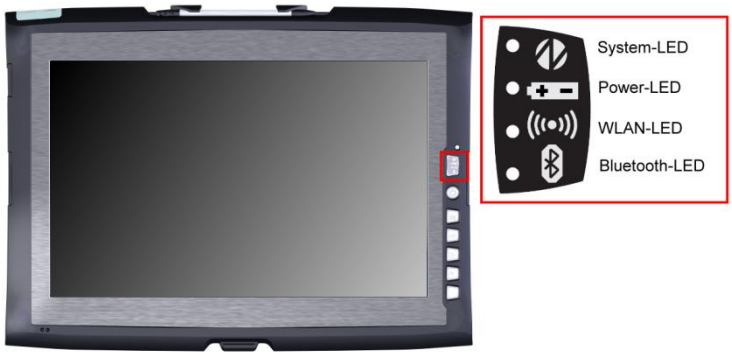
TOUCH STYLUS

Note:

This device is equipped with a supplied touch stylus for comfortably operating the touchscreen. This stylus should be used for all works on the device in order to avoid damage to the display.

4 FRONT PANEL FUNCTIONS

4.1 STATUS INDICATORS



This device is equipped with different status LEDs in the front. These LEDs indicate current events, like the system activity state, the current accumulator charge status and WLAN activities.

SYSTEM LED INDICATORS	DISPLAY BEHAVIOUR	DESCRIPTION
	-	The device is not connected to any power supply (power adapter/accumulator)
	Static	The device is connected to a power supply (power adapter/accumulator) and switched on
	Flashes	The device is in suspend mode (this mode can be set up using the operating system, re-activation via power button)
	Static	Device is accessing the HDD
POWER LED INDICATORS		
	-	Device is not connected to any power supply
	Static	Device is supplied by the charged accumulator
	Static	Device is supplied from an external power supply
	Flashes	Internal accumulators of the device are charged (device must be connected to a power supply (power adapter)
	Static	Device works with the accumulators' residual capacity

WLAN LED INDICATORS		
	Static	Device is not connected with a WLAN network
	Static	Device is connected with a WLAN network
	Flashes	Device is connected with a WLAN network and has data traffic
BLUETOOTH LED INDICATORS		
	Static	Bluetooth module is disabled.
	Static	Bluetooth module is enabled.
	Flashes	Device is connected with a Bluetooth subscriber and has data traffic

4.2 FRONT CONTROL KEYS

The keys on the front panel are occupied with the following functions by a specific driver in the soft keyboard:

SYMBOL:	FUNCTION:
	ON / OFF pushbutton for the device (approx. 0,5 seconds delayed)
	Shift key (SHIFT) for activating the second keyboard level. This key must be pressed simultaneously with the desired function key
	Level 1: Change task (Alt+ESC) in Windows Level 2: Increase the system volume
	Level 1: Switch from Potrait view to Landscape view Level 2: Decrease the system volume
	Level 1: Right mouse-key function Level 2: Increase display brightness
	Level 1: Activate and deactivate the soft keyboard for letter/character input using the touchscreen. Level 2: Decrease display brightness

Warning:
The front control keys should not be operated with a touch stylus but with the fingers, only.

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Note:

All function keys in the front panel, except for the ON / OFF pushbutton and the Fn button, have 2 function levels each. The primary function is activated by simply pushing the respective key. The second function level (small symbol to the top right) can be activated each time by pushing the Fn key first, and then additionally pushing the desired function key. It is essential to keep the Fn key always pushed in order to activate the second function level.

Note:

If the software keyboard is not installed, only the functions for display settings and volume control are active. The controller display will not be output on the display, in this case. Above described functions are pre-set ex works.

5 INTERFACES

5.1 20V DC POWER SUPPLY

TECHNICAL DATA OF THE POWER ADAPTER

- Power consumption: Max. 70 Watts
- Input voltage: 100…240 V AC
- Mains frequency: 50…60Hz

- Current consumption: 3.5A (230V AC)
- Max. switch-on current: < 60A (230V AC)

Note:
The typical power consumption of this device is indicated in the "Technical details" chapter.

5.2 14.4V DC BATTERY OPERATING MODE

The device is equipped with two batteries slots, by means of which the device can be supplied with power, alternatively. It is provided with a hot swap function which allows you to replace the batteries without rebooting.

The batteries are automatically charged in mains operation (20V DC).

Note:
If both batteries are to be replaced while operating the unit, power supply must be ensured by attaching the supplied power adapter. If you want to replace just one battery, you can do this without attaching an external power supply.

Battery status replacement

The TT13 batteries can be removed by using a mechanical ejector on the back of the device.

The batteries status can be retrieved by pushing a button on the batteries. The batteries display will light up for a few seconds and show the current batteries charge status on a scale from 0 to 100. If the display lights red, this represents a weak battery. If the display is green, it shows that the battery is fully charged. If the device is in operating mode, the battery status can be retrieved by using the supplied Battery Information & Diagnostics Tool.

Note:

The "**Hardware specific software**" chapter describes the Battery Information & Diagnostics Tool, which can be used for retrieving the accumulator status while operating the unit.

5.3 USB CONNECTIONS

The USB interfaces are used for connecting peripherals with USB connection. The interfaces comply with the USB 2.0 standard.

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PIN NUMBER	SIGNAL NAME
1	VDC
2	D -
3	D+
4	GND

Note:

The two side USB ports together have a current limit of 1.5A. This allows trouble-free operation of external devices, like an external DVD drive. The in-depth USB interface is designed according to the standard for 0.5A.

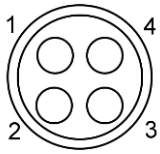
5.4 ODU-INTERFACE (OPTIONAL)

By using the SD Connector, the device can be connected to an Ethernet network (10/100 Mbit). Data throughputs of 10MB can be achieved with a maximum cable length of 5m.

Note:
This interface does not allow booting via the network. If you want to boot the device via the network connection, we recommend using the LAN interface.

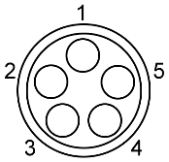
PIN-OUT: (LAN)

PIN-NUMBER	SIGNAL NAME
1	RxD+
2	RxD-
3	TxD+
4	TxD-



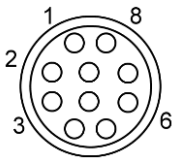
PIN-OUT: USB

PIN-NUMBER	SIGNAL NAME
1	Data-
2	Data+
3	GND
4	VCC
5	NC

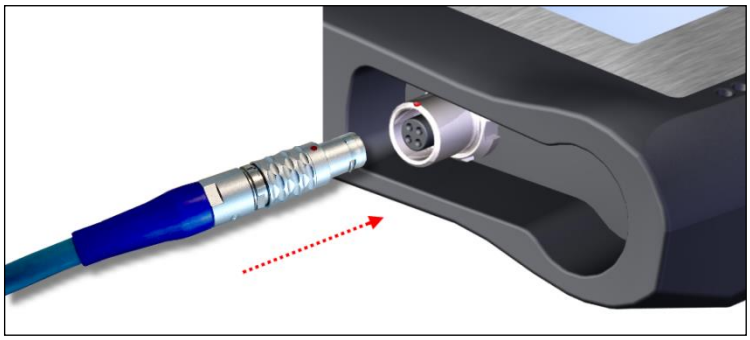


PIN-OUT: RS232

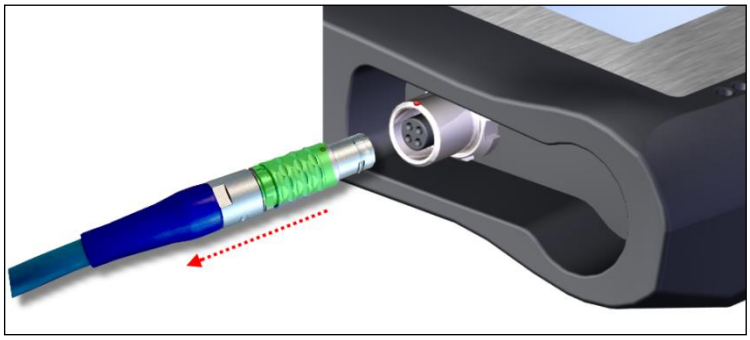
PIN-NUMBER	SIGNAL NAME
1	DCD
2	RxD
3	TxD
4	DTR
5	GND
6	DSR
7	RTS
8	CTS
9	RI
10	NC



The SD Connect cable must be connected so that the red markers match.



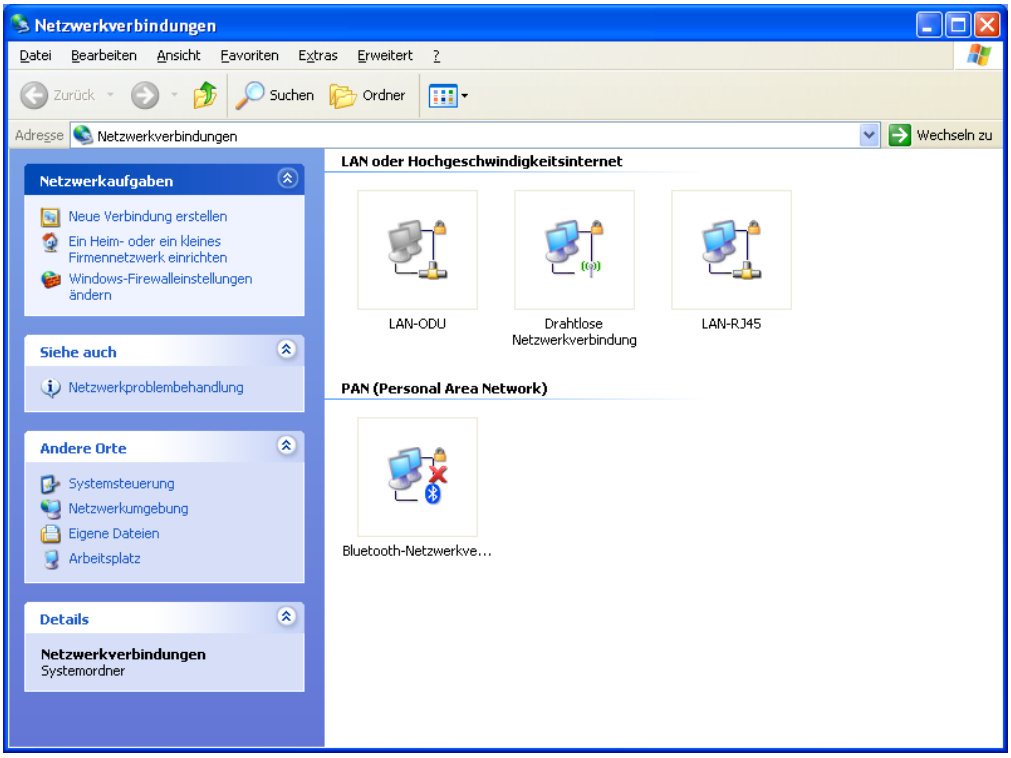
For disconnecting the SD Connect cable, it must be pulled rearwards in the area marked in green. This loosens the snap-in mechanism at the end of the plug.



Note:

The interface is always shown in the network connections, even if the interface is not available regarding the configuration of the device. Functionality is only given, when a interface is available.

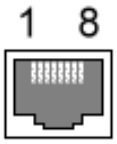
VIEW: NETWORK CONNECTION (EXEMPLARY)



5.5 NETWORK CONNECTION (RJ45)

If the drivers required for functioning are installed on the device, the control system may be integrated in an Ethernet network supporting the 10/100 Mbit standard by using the Ethernet 10/100BaseT network connector. Specifications of this network topology must be observed in this case.

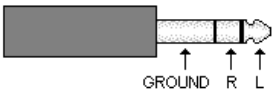
PIN NUMBER	SIGNAL NAME
1	TX +
2	TX -
3	RX +
4	NC
5	NC
6	RX -
7	NC
8	NC



5.6 MIC IN

An external microphone can be connected via the MIC IN socket on the device by means of a 3.5mm cinch cable.

PIN NUMBER	SIGNAL NAME
Ground	GND
R	Signal, right-hand side
L	Signal, left-hand side



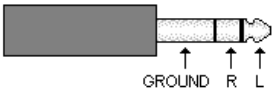
MICROPHONE IN FRONT PANEL

Additionally, the device has an internal microphone in the front panel. This microphone can be configured by using the volume control integrated in the operating system.

5.7 LINE OUT

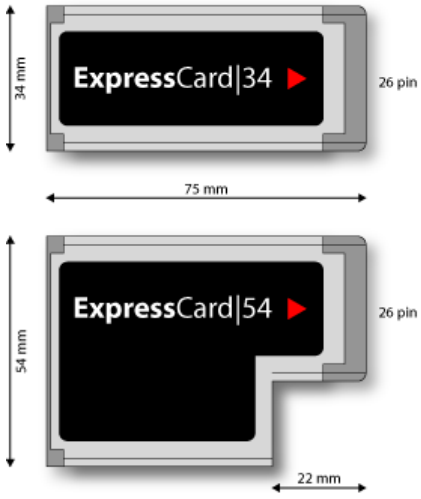
By using the Line Out socket of this device and connecting via a 3.5mm cinch cable, a stereo audio signal can be output to earphones or to external speakers.

PIN NUMBER	SIGNAL NAME
Ground	GND
R	Signal, right-hand side
L	Signal, left-hand side



5.8 EXPRESSCARD SLOT

The device is equipped with an ExpressCard slot, which supports the following ExpressCard types.



6 SOFTWARE & DRIVER INSTALLATION

The device will be delivered with a pre-installed Windows operating system on request by the customer. The drivers required for this are already installed and the operating system will be enabled by entering the licence information. Should an initial installation be required, please follow the following steps. With a newer operating system like Windows XP, the network card and graphics card will properly be recognised during the initial installation, so that only the touchscreen driver and the soft keyboard must be installed separately.

Note:

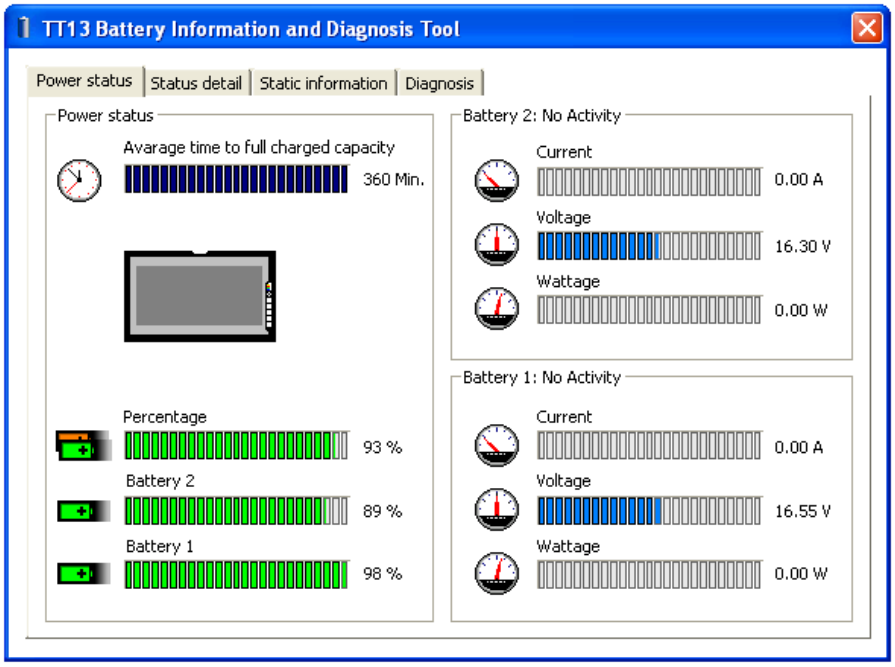
If the hard drive was formatted, the operating system can be reinstalled by using one of the existing interfaces.

An external keyboard is required for installation.

6.1 BATTERY INFORMATION & DIAGNOSTICS TOOL

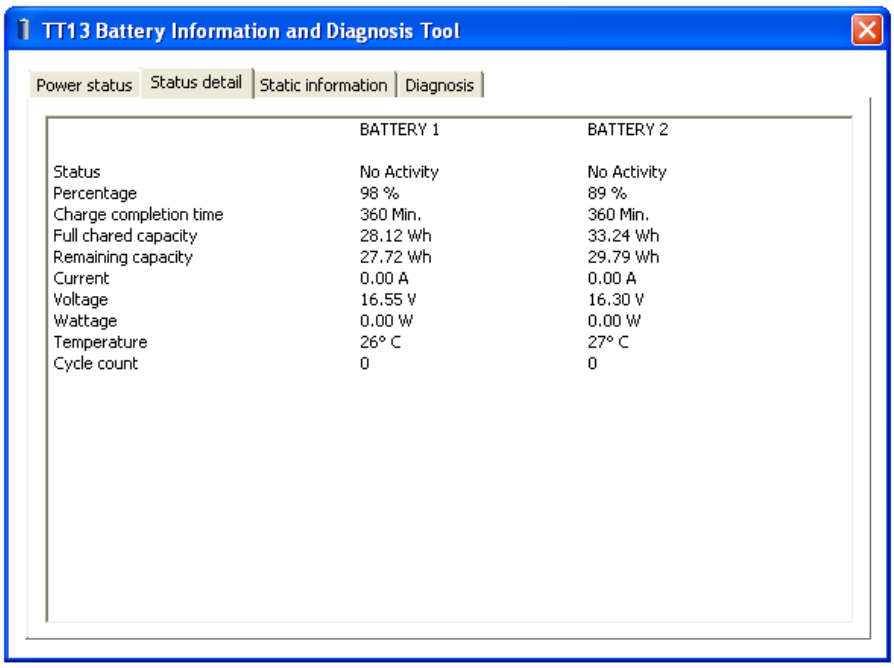
POWER STATUS

The starting page of the battery information tool gives information about the current accumulator charge status. The lithium-ion accumulators are charged alternately with the 20V power adapter connected. The charging progress is displayed on the right hand side for both accumulator slots. The status display on the left shows the remaining accumulator charging time.



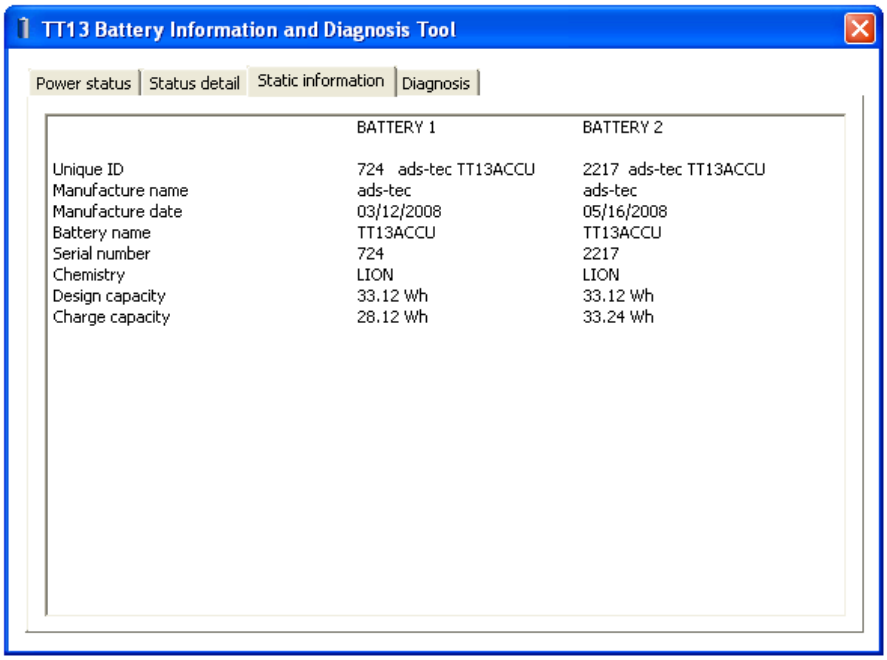
STATUS DETAILS

The Status Detail page lists all starting page data in a table.



STATIC INFORMATION

The "Static Information" tab displays all detail information, e.g. the manufacturer, and the capacity of the lithium-ion accumulator.



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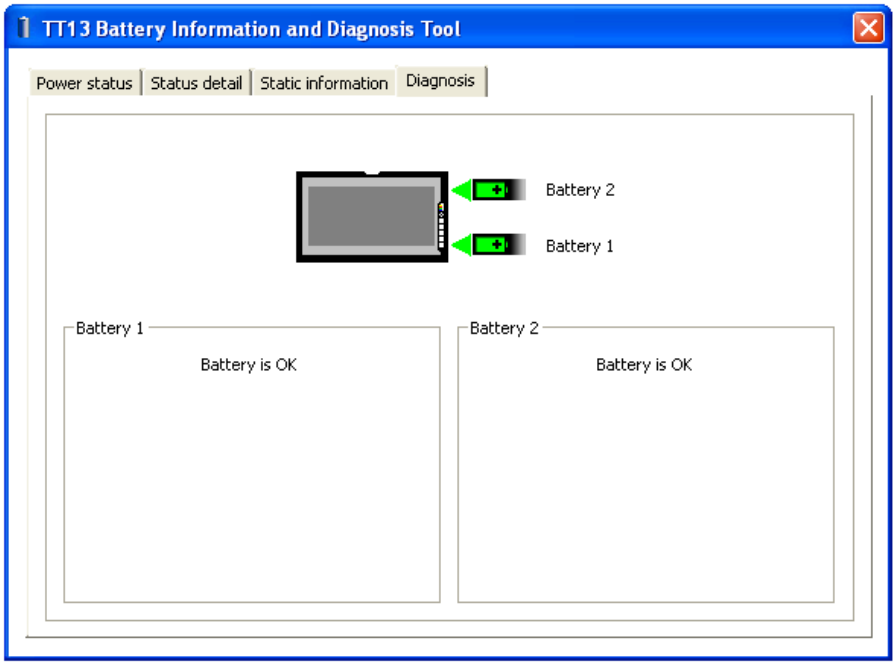
DIAGNOSTICS

The Diagnostics tab gives information about the proper function and about the number of used lithium-ion accumulators.



6.2 TT13 HDD PROTECTION

Note:
The application is attended to protect the read-/write cycle of the hard disk. Via a sensor, sudden kinetic changes or agitation is being recognized. To prevent damage and possible data loss, the reading head will be placed to a neutral position.

The application is used to control the HDD Protection drivers and services. It will start minimized and adds the tray bar a icon.

Illustration1: Traybar Icon

Via the icon, the current status of the HDD Protection is being shown. If the HDD is blocked, the following status is shown.

Illustration2: Traybar icon with activated HDD Protection

Double clicking or using the context menu will maximize the application.

The configuration application (Illustration3) enables the power on /off of the icon the traybar. Additionally the durability of protection after, a agitation, can be configured in ms at the “HDD Protection Time”. The sensibility of protection can be changed by four steps. These steps are: High, Middle, Low and Inactive. The protection can be activated manually and stays activated until the user is deactivating the protection.

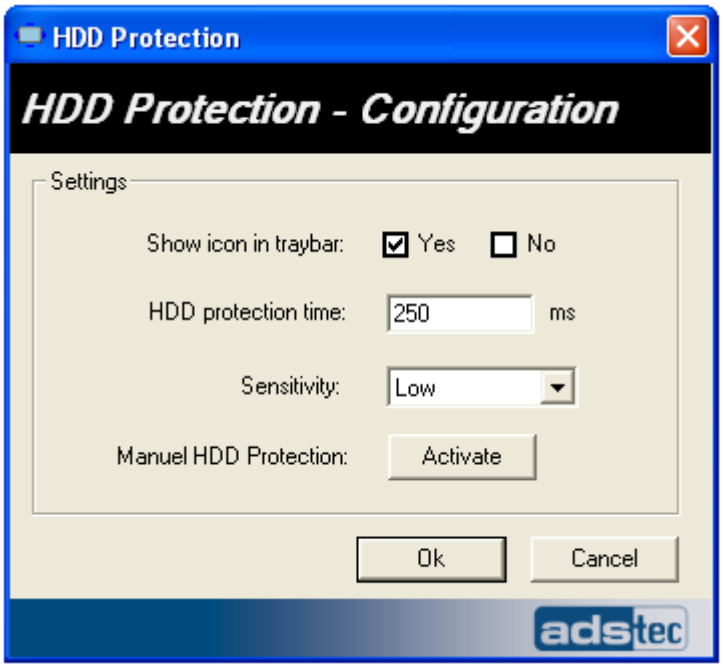


Illustration3: Configuration surface

CONFIGURATION

The Configuration of the application is done by the file c4hddshock.ini

The following settings are possible:

Parameter	Options
LanguageId	Parameter to change the language of the surface. Right now the parameter can be DE or EN.

LANGUAGES

At the moment the languae English and German is supported by the application. The text is configured in the **lang** directory under **c4hddshock_de.txt** and **c4hddshock_en.txt.** The languages can be added by further files. The Ending of the file matches the code for the language which has to be added in the INI-File under **LanguageID**.

6.3 TT13 WIRELESS KONFIGURATION

Hinweis:

The application is intended to activate/ deactivate the whole hardware in the device, which is intended for wireless data communication.

Die Anwendung dient zur kompletten Aktivierung / Deaktivierung der Hardware im Gerät, welche für drahtlose Datenkommunikation dient.

Depending on your device configuration the power off of the following hardware is allowed:

WLAN
Bluetooth
UMTS
RFID

BLUETOOTH

If a Bluetooth module is available, the Bluetooth class can be switched. With Class 1, a range of max. 100m open air can be reached, while Class 2 is limited to a range of 10m.

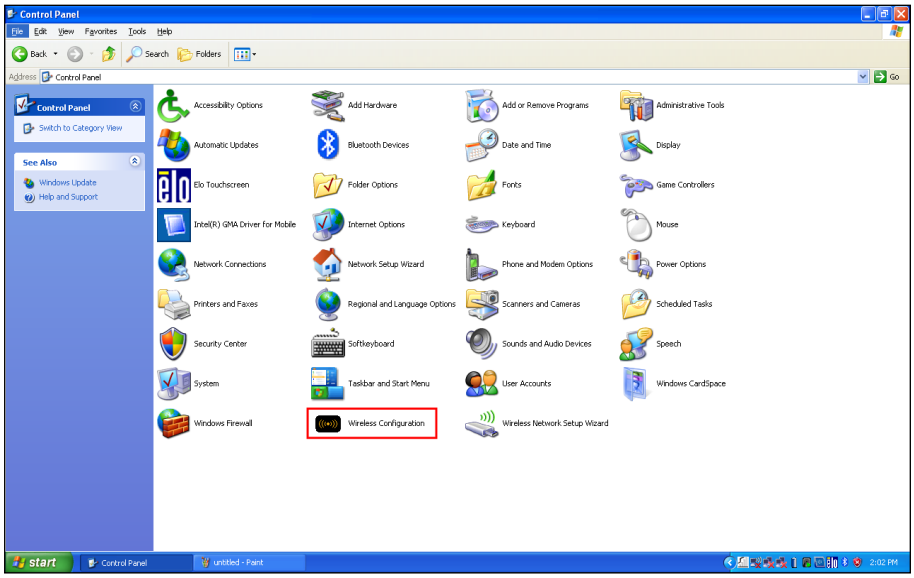
After changing the Bluetooth Class it is mandatory necessary to reebot the device, because the changes will only take effect after rebooting the device.

The Switch as well as the activation and deactivation of the separate components can take several seconds.

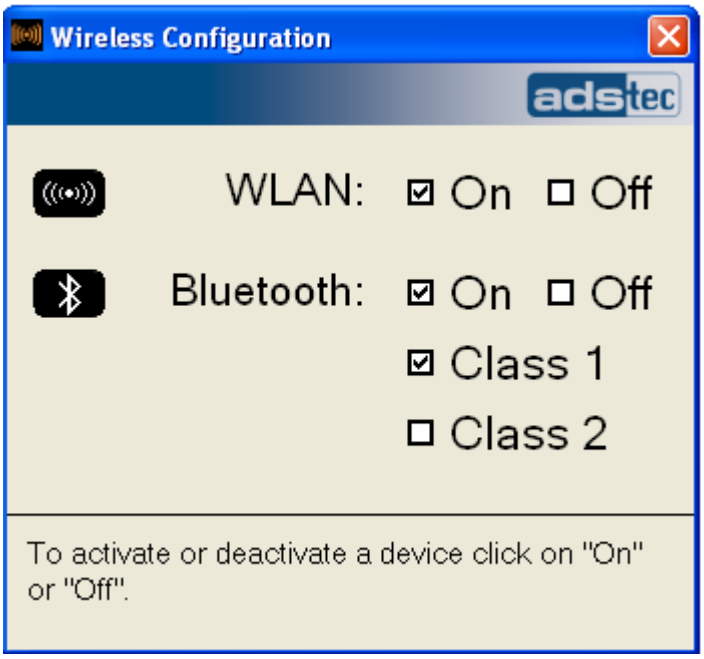
If the option “Controlled by Bios” in Advaned/Firmware is Enabled, the bios is able to activate or deactivate the several hardware components depending on the configuration in the Bios. The selected settings for the wireless configuration in Windows will be overwritten. For usage of the Wireless configuration, it is recommended to set the option Controlled by BIOS to Disabled.

Note:

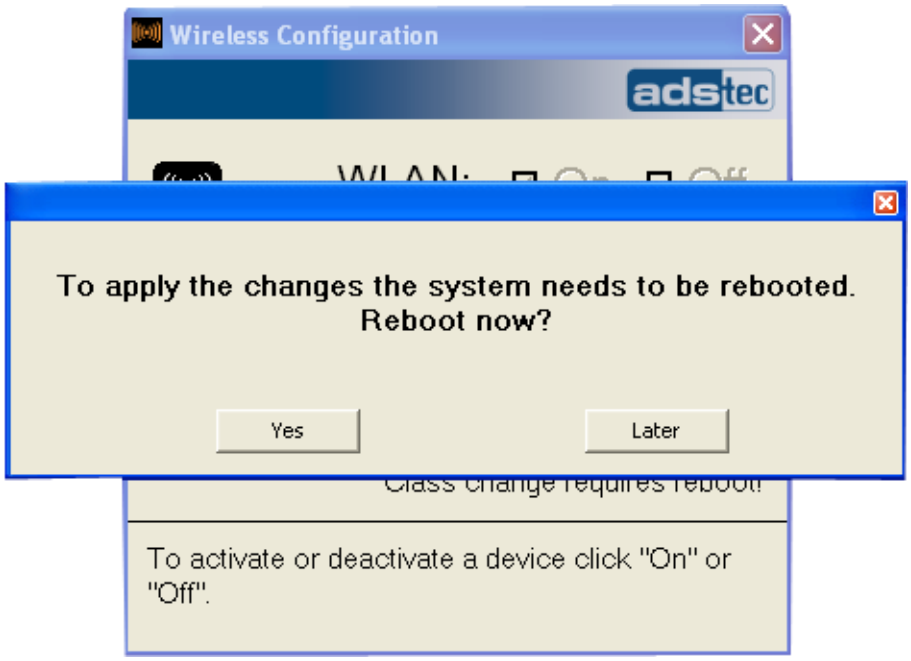
The application can be started in the control panel after installation.



WIRELESS CONFIGURATION: STANDARD VIEW



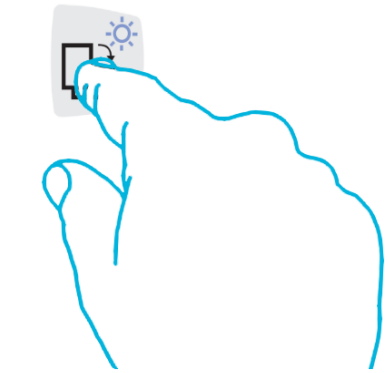
WIRELESS CONFIGURATION: BLUETOOTH CLASS-SWITCH



6.4 TT13 TOUCH ROTATION

Note:
The service enables the loading for the best configuration for 0° and 90°.

If the button **landscape/portrait** is activated, the switch from 0° to 90 takes effect. Pushing the button again will switch back to 0°.



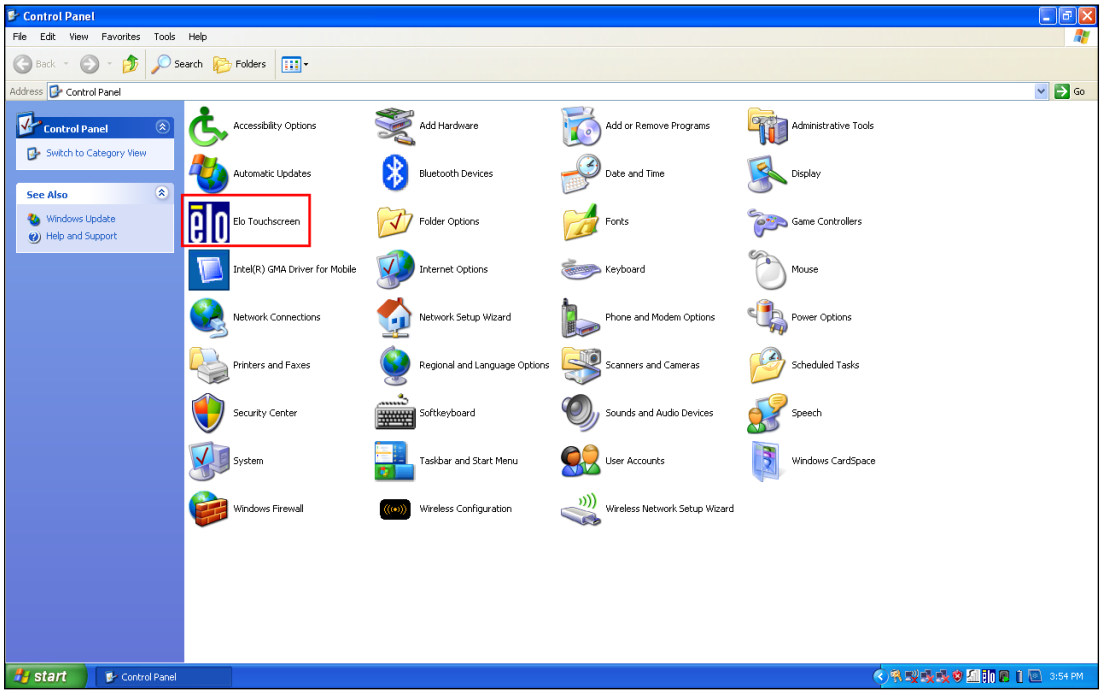
Note:
Every kind of exposure needs to be calibrated once via the 25 point calibration.

ELO TOUCH 25 POINT CALIBRATION

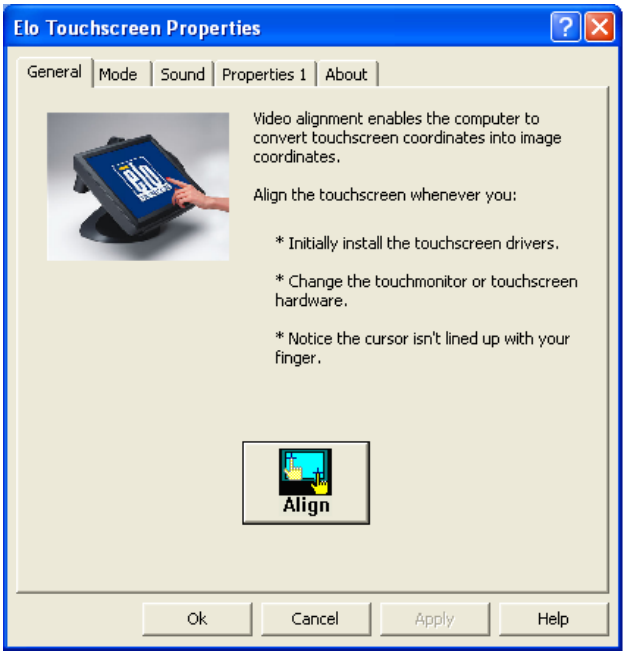
The calibration of the ELO Touchscreen can be done via the application in the control panel.

Note:

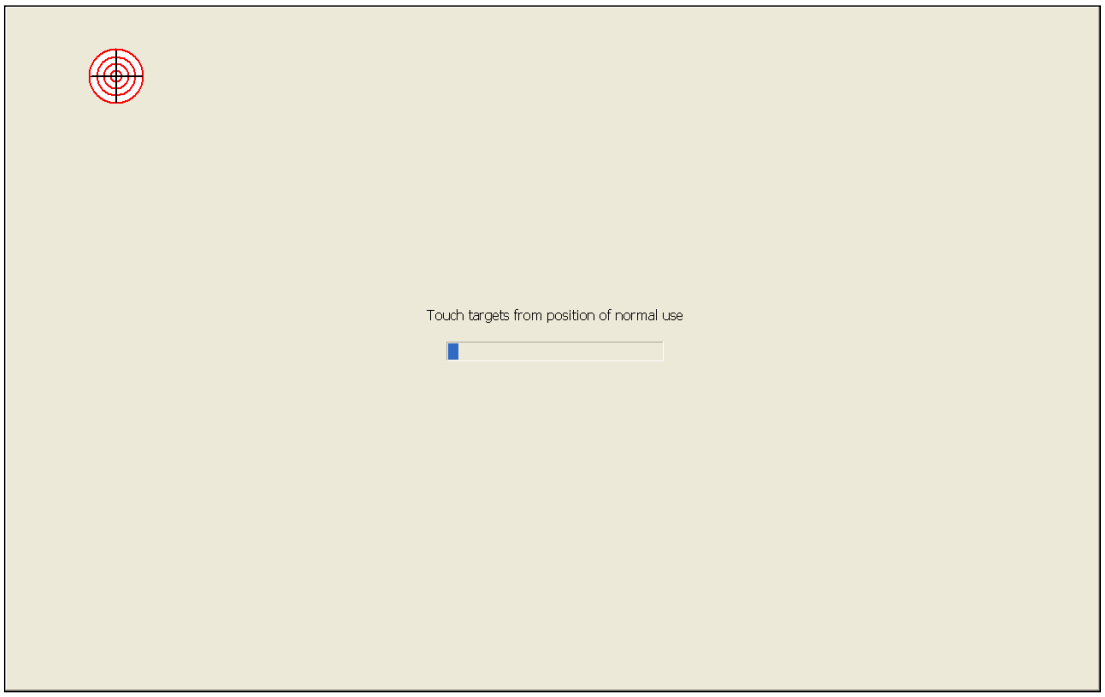
If you want to start the calibration for the 90°-View, you first have switch the display calibration via the landscape/portrait button before beginning the ELO Touchscreen calibration.



Start the calibration of the Touchscreen via the button “Adjust”



Tip the Touchscreen at the marked positions and finish the calibration with the green check.



Finally the application can be closed with OK.

Note:
Before configuring another display view, the ELO Touchscreen application needs to be closed and subsequently started with the new display view.

Warning:
After successful configuration the application needs to be quit with OK, otherwise the calibration will not be saved.

6.5 TT13 MONITORING

Note:
The application is pretended to monitor the temperature and the fan of the TT13.

The application starts minimized and is not visible until a fault is recognized. If a fault is recognized, the temperature or the fan icon in the traybar will be displayed.

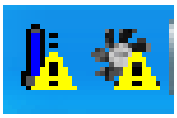


Illustration1: Traybar Icon

A Warning is displayed additionally while the icon is faded in.

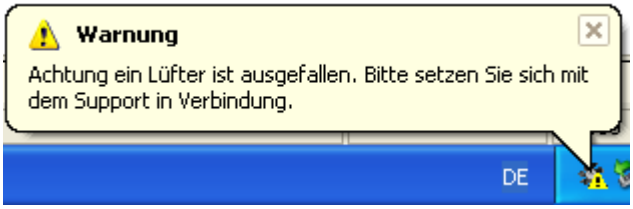


Illustration2: Warning message if fan breakdown

With a double click on the Icon or the context menu, the warning can be displayed as dialogue.

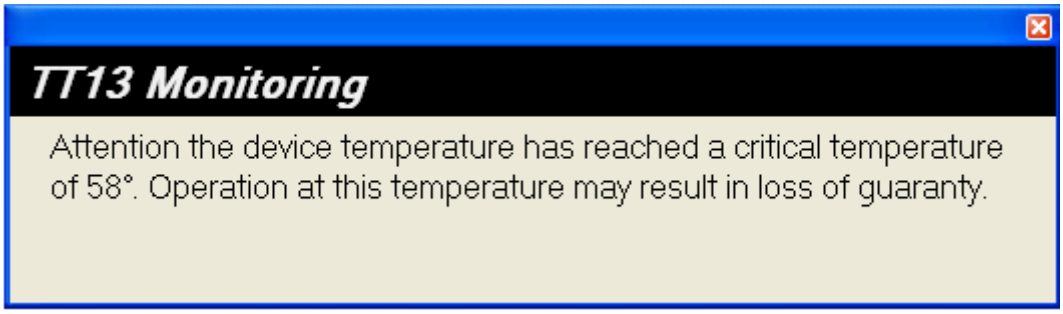

TT13 Monitoring
Attention the device temperature has reached a critical temperature of 58°. Operation at this temperature may result in loss of guaranty.

Illustration3: Temperature exeedence at TT13

CONFIGURATION

The configuration of the application is done by the file **C4Monitoring.ini**.

The following settings are possible:

Parameter	Options
LanguageId	Parameter to configure the language of the surface. At the moment the Parameter can be „**DE**“ or „**EN**“.

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LANGUAGES

At the moment the languae English and German is supported by the application. The text is configured in the **lang** directory under **C4Monitoring _de.txt** and **C4Monitoring _en.txt.** The languages can be added by further files. The Ending of the file matches the code for the language which has to be added in the INI-File under **LanguageID**.

With this text, the files for warning can be customized.

6.6 TT13 ADSXTERN TEST

Note:
More information for TT13 adsxtern can be seen on the Service-CD.

6.7 MANUAL REINSTALLATION

The following Stepps are only required if a reinstallation of the operating system is necessary.

INSTALLATION OF THE OPERATING SYSTEM

Install the operating system from a storage. (USB / LAN / CD/DVD)

INSTALLATION OF THE DEVICE DRIVERS FROM THE SERVICE CD

Additionally the device drivers have to be installed from the supplied Service-CD. The device drivers are placed in the directory **Driver** on the Service-CD.l

INSTALLATION OF THE TT13 TOOLS

The TT13 Software Tools can be installed via the **TT13 Tools Installation V.x.x.exe**. The Setup-File is placed in the directory Software Tools on the Service-CD.

6.8 INSTALLATION OF THE TT13 SOFTWARE PACKAGE

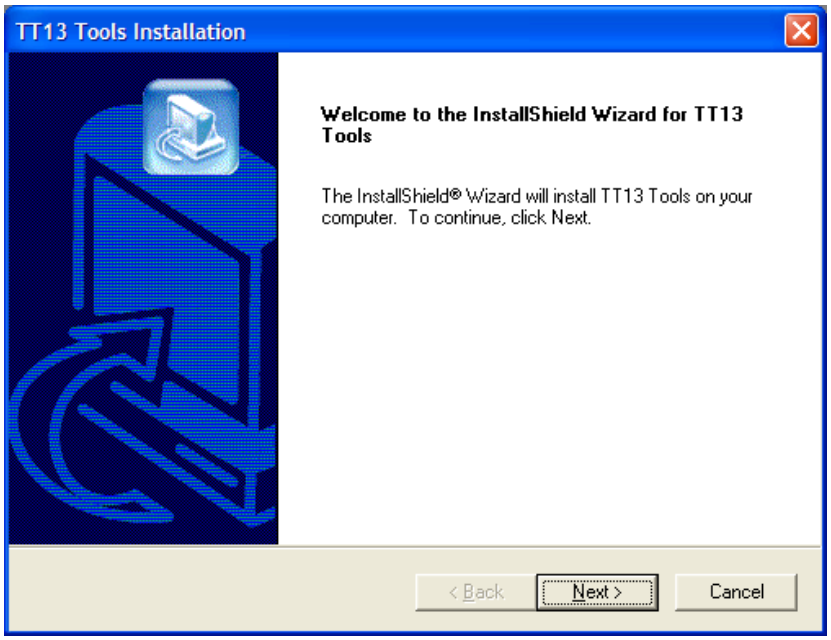
Note:

With the TT13 Software Tools hardware components can be controlled, monitored and evaluated. In case of high exposure the Software Tools will help to prevent lasting damage by protecting important hardware components actively. In diagnostic cases the Software Tools will give information about the system condition and enable fast troubleshooting.

Start the **TT13 Tools Installation Vx.x.exe**. Verify with **OK**.

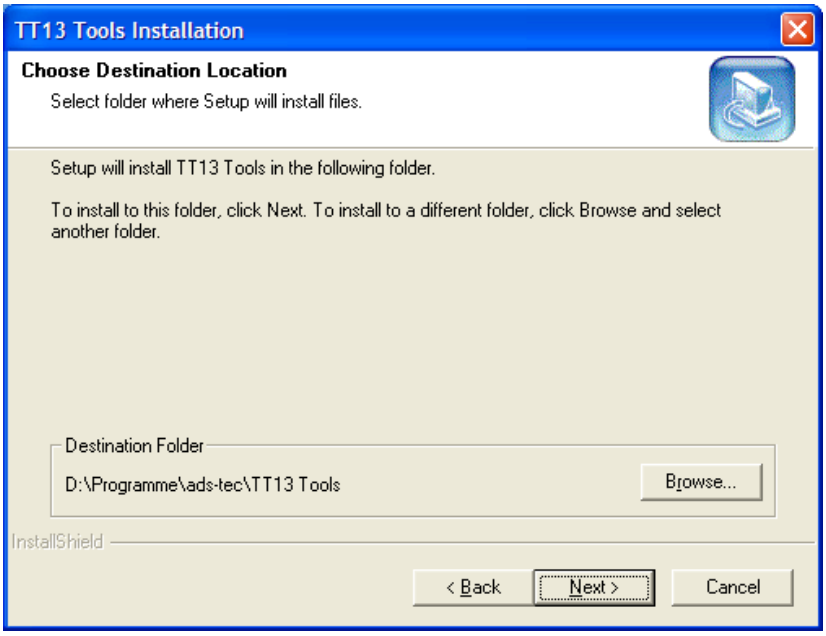
Wählen Sie eine Setup-Sprache aus
Wählen Sie die Sprache dieser Installation aus der unten aufgeführten Auswahl aus.
Englisch
OK
Abbrechen

Followed by a click on **Next**


TT13 Tools Installation
Welcome to the InstallShield Wizard for TT13 Tools
The InstallShield® Wizard will install TT13 Tools on your computer. To continue, click Next.
< Back
Next >
Cancel

Choose the directory where the Programs should be installed. It is recommended to use the Default Path.

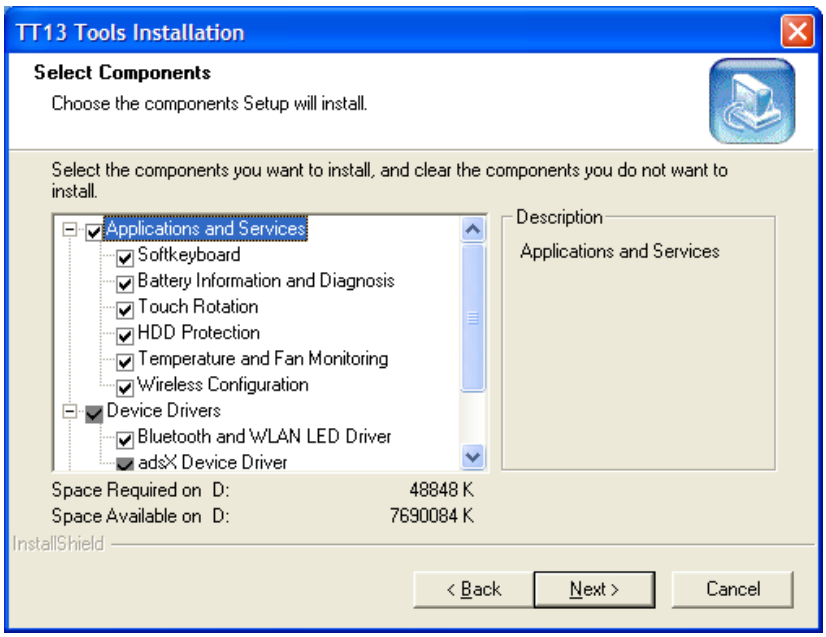
Verify with **Next**


TT13 Tools Installation
Choose Destination Location
Select folder where Setup will install files.
Setup will install TT13 Tools in the following folder.
To install to this folder, click Next. To install to a different folder, click Browse and select another folder.
Destination Folder
D:\Programme\ads-tec\TT13 Tools
Browse...
InstallShield
< Back
Next >
Cancel

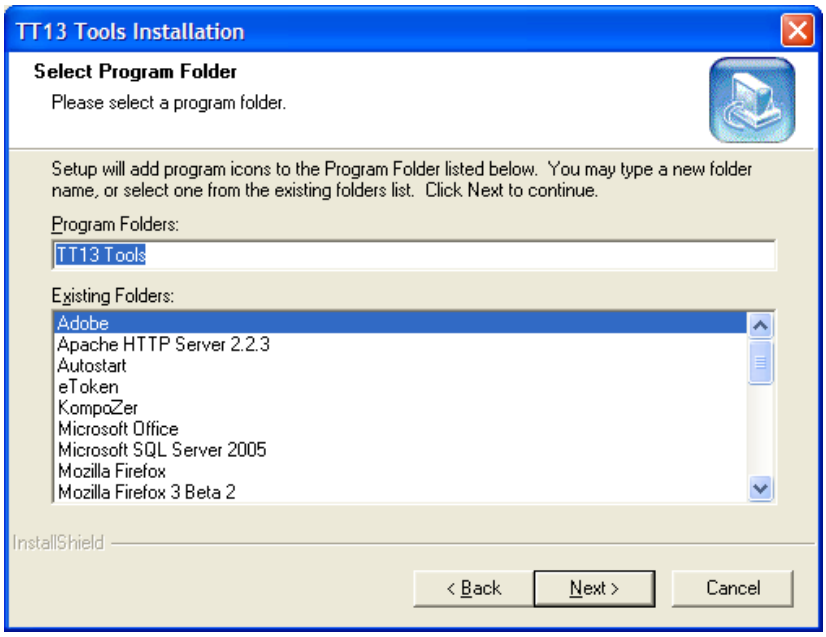
The folling dialogue box allows you to choose the Software Tools needed.

Note:
If device drivers are not installed, the functionality of system components like LED display will maybe not work properly.

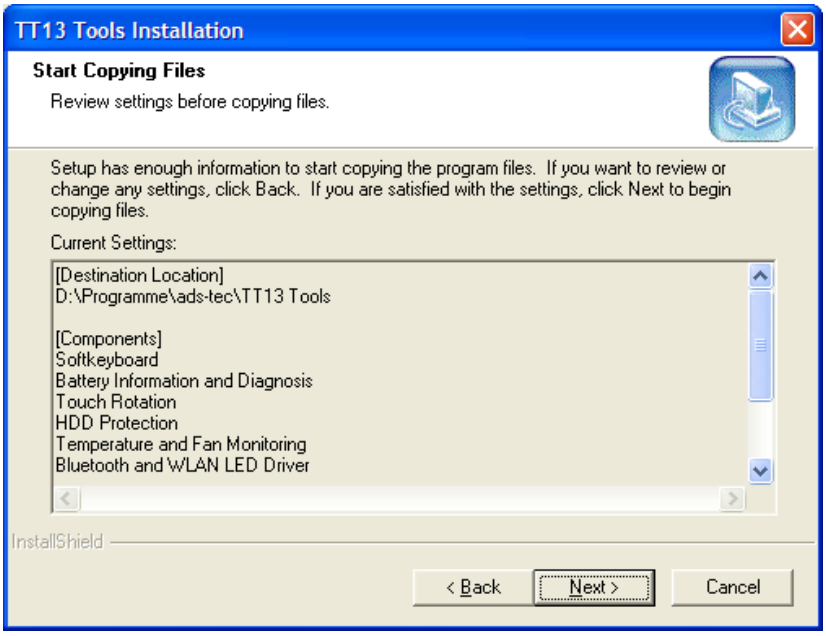
Verify with **Continue**



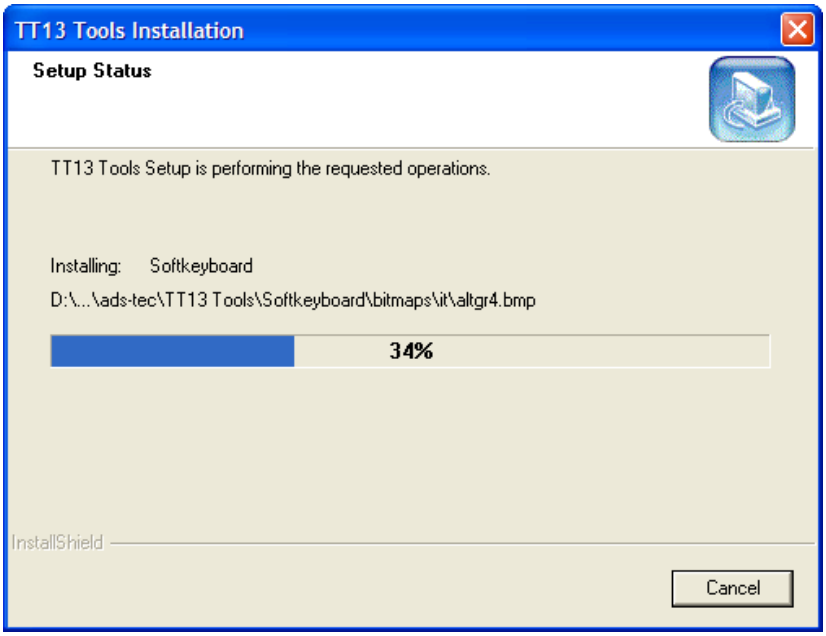
Verify with **Next**



Verify with **Next**


TT13 Tools Installation
Start Copying Files
Review settings before copying files.
Setup has enough information to start copying the program files. If you want to review or change any settings, click Back. If you are satisfied with the settings, click Next to begin copying files.
Current Settings:
[Destination Location]
D:\Programme\ads-tec\TT13 Tools
[Components]
Softkeyboard
Battery Information and Diagnosis
Touch Rotation
HDD Protection
Temperature and Fan Monitoring
Bluetooth and WLAN LED Driver
InstallShield
< Back
Next >
Cancel

The Installation procedure starts …



After successfull installation you can exit the Setup by clicking on Finish. If the Default Installation Path was used, the ads-tec tools are installed in:

Start → Program Files → TT13 Tools

6.9 WLAN

The device is equipped with a wireless network card. If the operating system supports this card via drivers, the device can be integrated into a Ethernet Network with Support for 11 Mbit or 54Mbit (802.11 a/b/g). The specifications of this network topology has to be attended.

Note:

The device is equipped with a Mini PCI WLAN Card with Atheros Chip. If a device is delivered with a operating system from ads-tec, the needed system drivers will be integrated into the system. In the operating systems Windows XP Professional“ and „Windows XP Embedded“, the original “Atheros Client Utility (ACU)“ is installed, to define new WLAN networks and to define new connection settings. The mentioned utility supplies lots of settings, which are meeting the conditions of the own network.

Note:

The check and settings for country code of the WLAN-Card is the users responsibility. The default settings in a german image is Germany and in a English image it is United States.

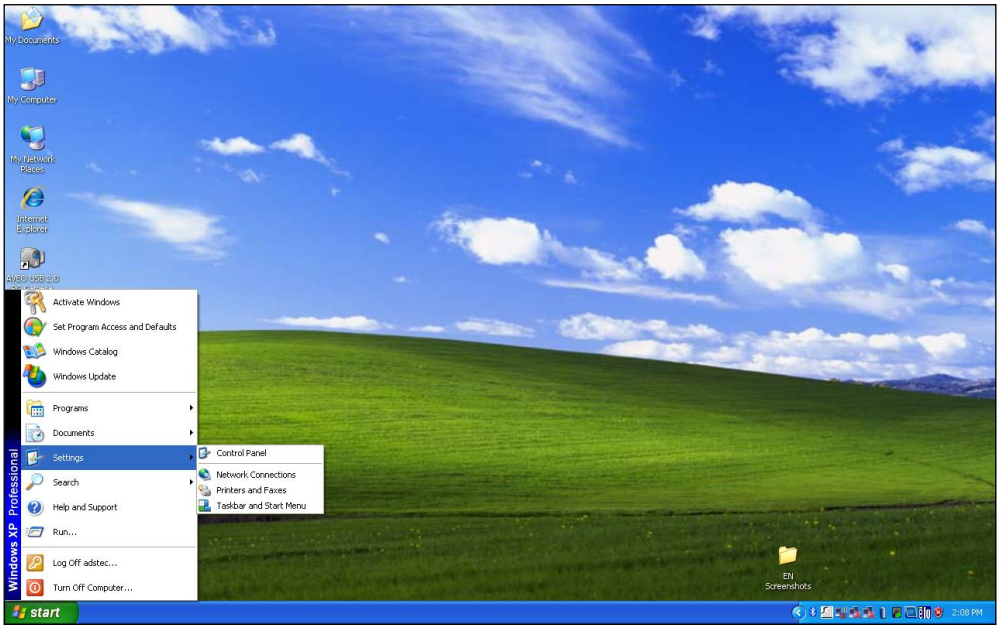
Note:

In default condition Windows is used to manage the wireless connection. If the Atheros Client Utility should be used, you have to remove the checkbox from ”**Use Windows to configure Settings**” in the path: **Start → Settings → Control Panel → Network Connections.** With the right mouse button you have to choose **Wireless Netowrk Connection** and navigate to the **Properties** section. Switch to the tab **Wireless Networks**

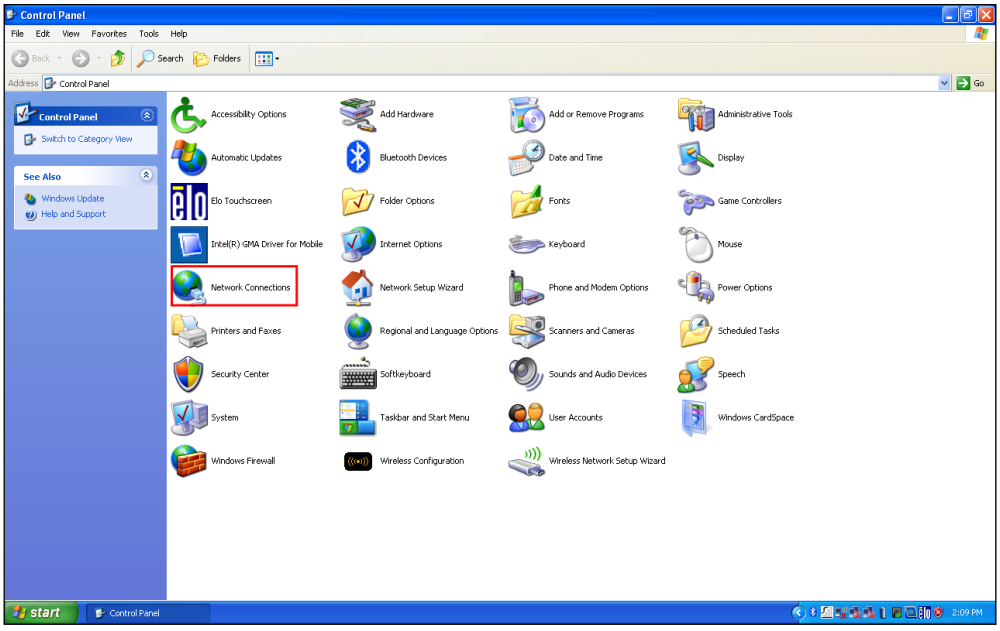
CONFIGURATION OF THE COUNTRY CODE

The default Installation of the WLAN driver, which is provided by Service-CD, installs the driver with the country code “United States”. The channels 1-11 are used. The country code can be changed later. The following chapter shows how to change the country code.

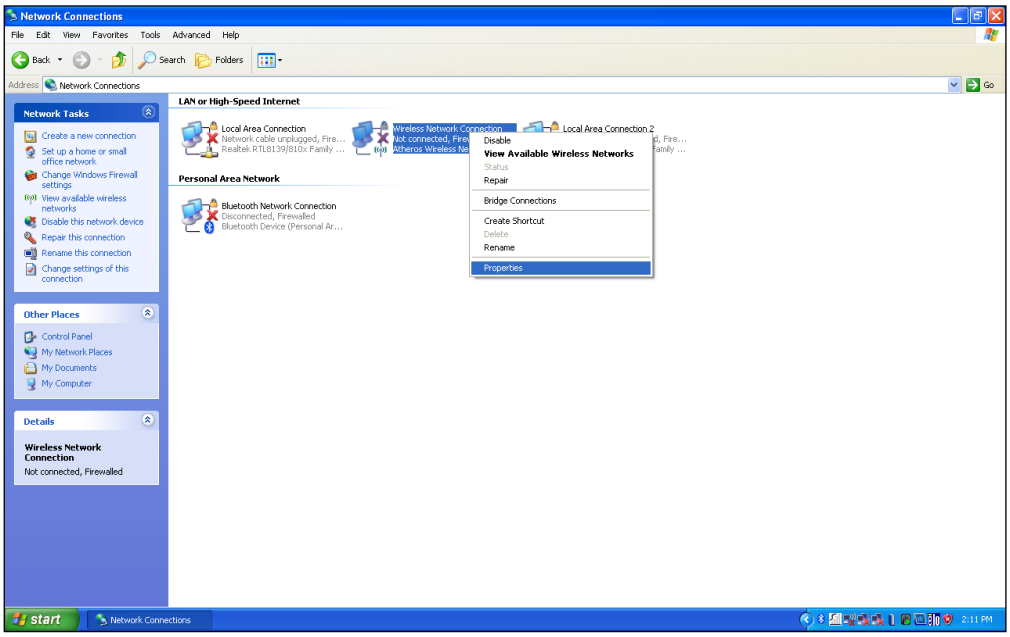
1) Open the control panel of your operating system with thee path: **Start→ Control panel**



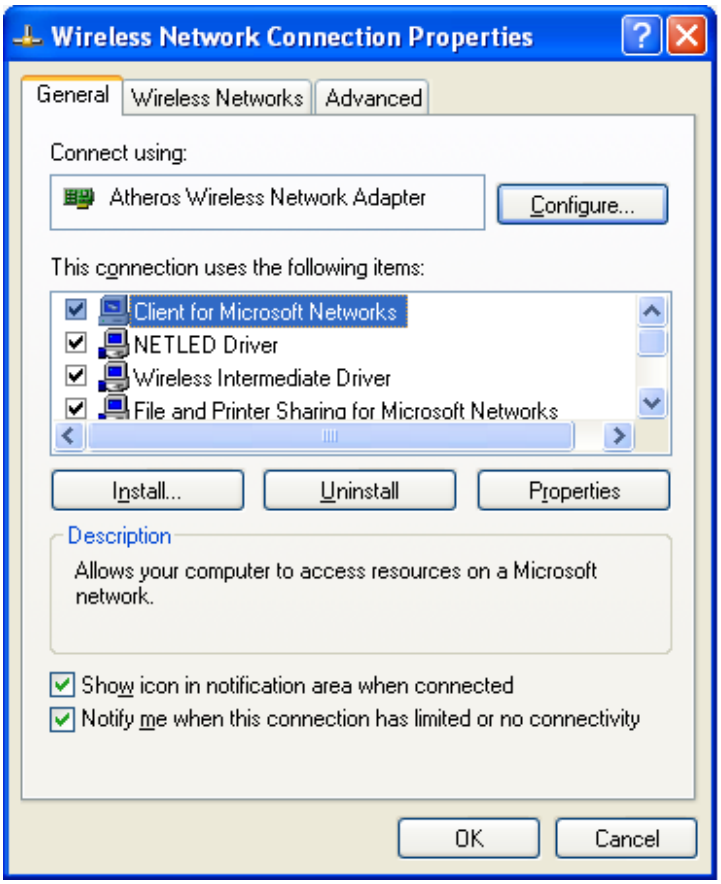
2) Open the network connection via double click.



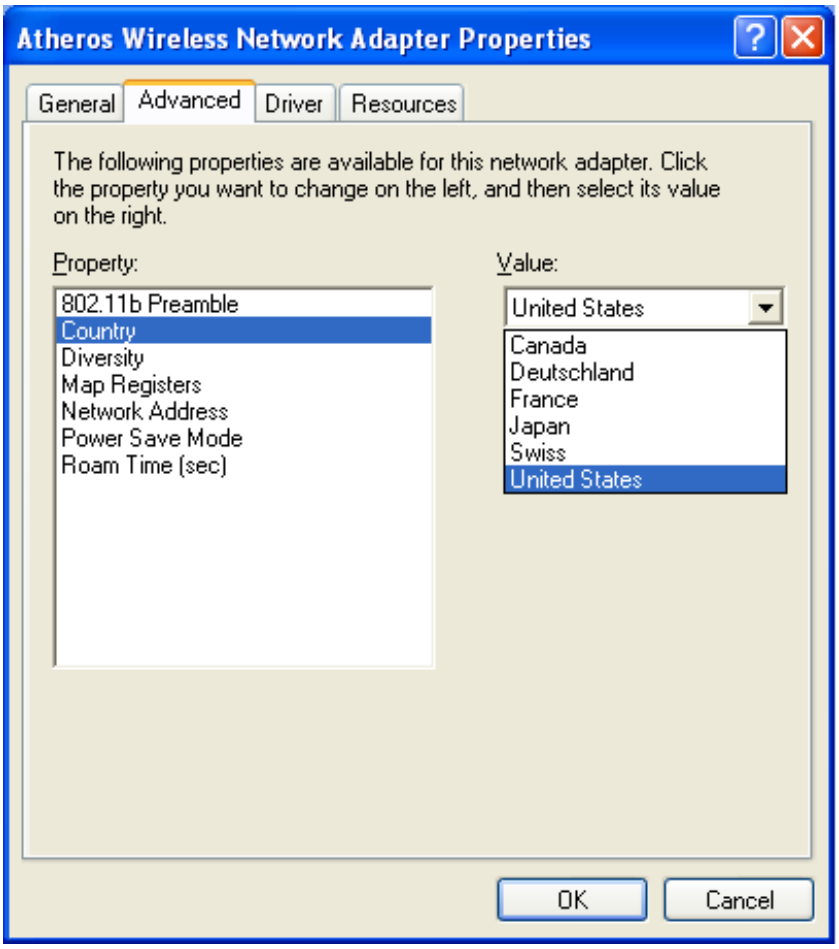
3) Choose your wireless network connection via right mouse button and click on **Properties.**



4) The now showing dialgouebox you have to chosse **configure**



5) Change to the tab **Advanced.** Choose the **country** in value to the desired country.



6.10 BLUETOOTH

Note:
Detailled Information with the keyword Bluetooth can be seen in Windows Help which is located in the path: **Start → Help & Support**

6.11 UMTS (OPTIONAL)

The TT13 device is equipped with a mini PCI Express card of the Sierra Wireless MC8775V type. By using the UMTS card, audio and data signals can be transmitted. The following mobile radio network standards are supported by this card:

GSM / GPRS / EGDE

850 MHz, 900 MHz, 1800 MHz, 1900 MHz

UMTS WCDMA / HSDPA

2100 MHz

UMTS WCDMA / HSDPA

850 MHz, 1900 MHz

TELEPHONY VIA UMTS

An activated SIM card and a headset are required for communication in order to use the telephony (voice call) function in the TT13 device.

Note:
Should the SIM card show no support for UMTS, the device will automatically select the appropriate radio standard, which is supported by the inserted SIM card.

Inserting the SIM card

Open the rubber cover on the device. Push with a small object on the SIM card opener highlighted in yellow, in order to open and remove the SIM card drawer.

Note:
The "SIM 2" SIM card slot must be used for UMTS functionality.

Insert the SIM card in the SIM card drawer as shown in the picture.

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Push the SIM card drawer back into the device with the SIM card facing down.

Connecting the headset

A commercially available headset including microphone is required for proper communication. Connect the headset as shown in the figure.

Note:

This figure shows how to connect the headset via a cinch cable. Modern headsets also offer the opportunity to be operated by using a USB port. Specific drivers from the manufacturer might be required for commissioning.

3G WATCHER

The integrated **3G Watcher** software controls the functions of the built-in Sierra Wireless MC8775V PCI Express Card.

The following dialogue window will appear once the SIM card was inserted. Now enter the PIN code of your SIM card in the dialogue window and confirm by pushing **Send**.

Once the PIN code was entered successfully, the main menu of the 3G Watcher software will appear.

The appropriate network operator for the SIM card should be recognised after a few seconds.

By using the **Language** tab, a numeric pad is shown. Now you can enter a phone number by using the numeric pad.

Click on the green handset icon in order to start the dialling process.

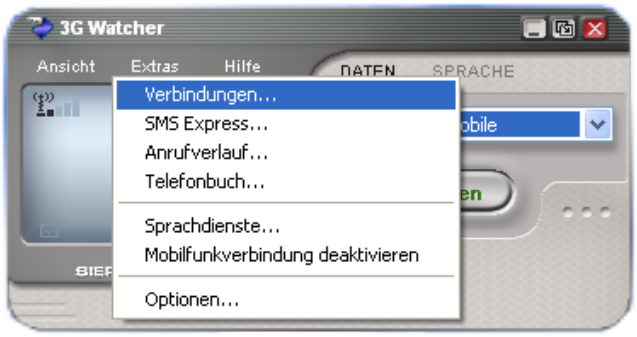
The duration of the connection is displayed with an active connection.

During the phone conversation, the headset volume can be increased or decreased in the highlighted section.

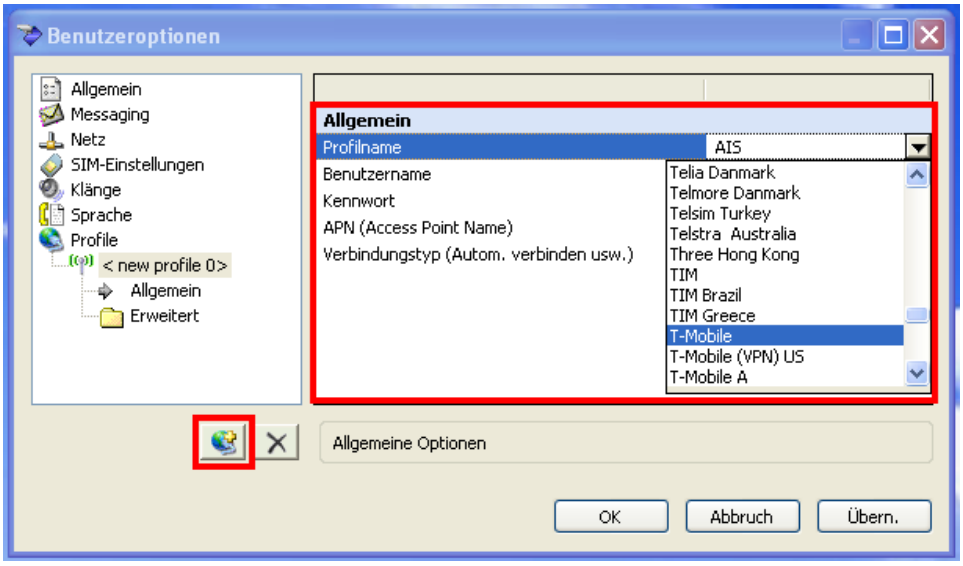
INTERNET VIA UMTS

The Internet can be used via the UMTS broadband network. The 3G Watcher software includes default WWAN providers, which are activated by creating a profile.

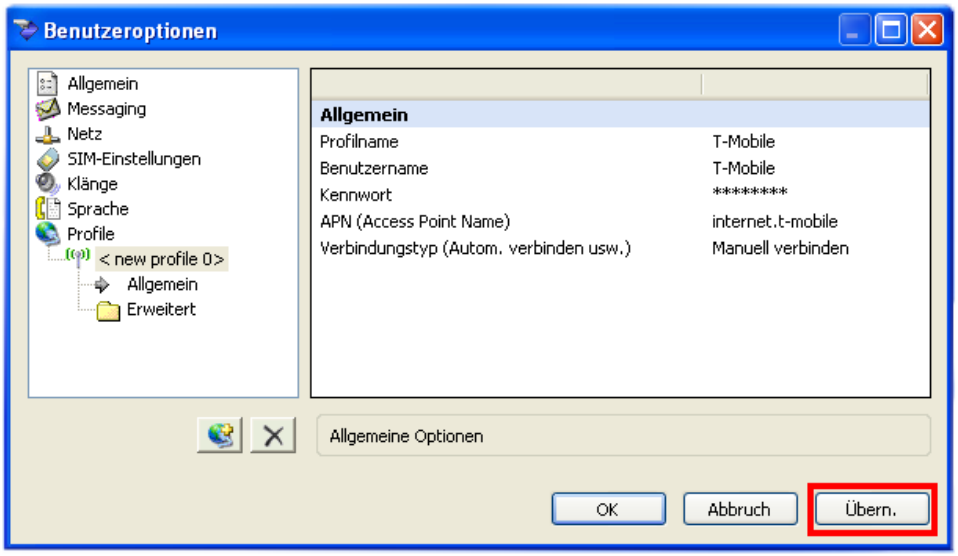
Open the connection administration by using **Tools→Connections**



Click on the following icon in order to create a new profile. Subsequently select your WWAN provider (network operator of your SIM card) from the pull down menu.



Confirm your selection first by pushing **Save,** and subsequently with **OK.**



The profile of your WWAN provider is now enabled and will appear in the main menu of the 3G Watcher.

Please select your provider from the pull down box. Subsequently click on **Connect**.

A pop-up window will appear if the connection was established.

Now the received and sent packets will be displayed.

If you'd like to disconnect from the Internet, please click on **Disconnect**.

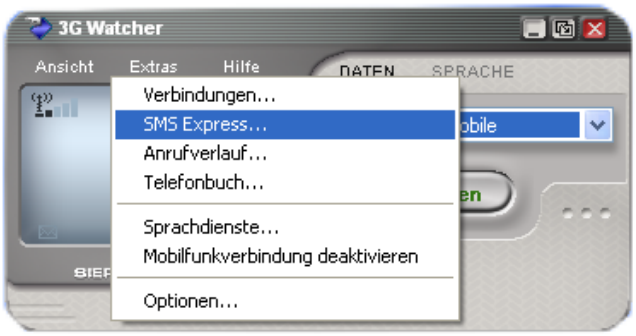
3G Watcher
Ansicht
Extras
Hilfe
DATEN
SPRACHE
HS
T-Mobile D
Empfangen
15.72KB
Gesendet
5.32KB
WWAN - T-Mobile
Trennen
SIERRA WIRELESS

3G Watcher
Ansicht
Extras
Hilfe
DATEN
SPRACHE
3G
Getrennt von T-Mobile
WWAN - T-Mobile
Verbinden
SIERRA WIRELESS

SMS FUNCTION

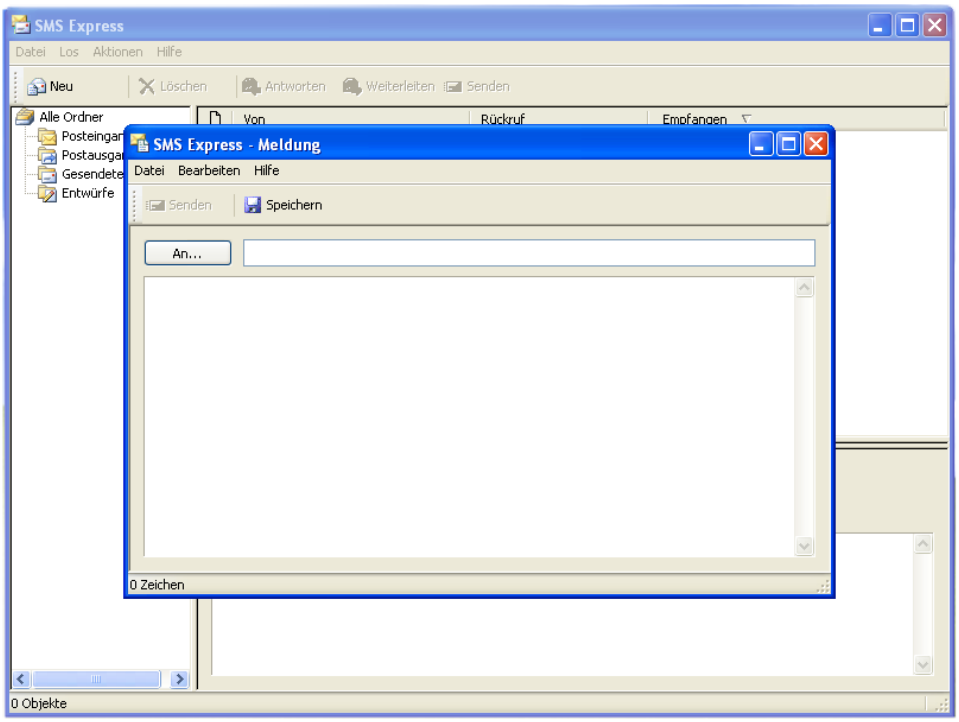
This software offers the opportunity of sending short messages (SMS).

In order to use this feature, open SMS Express in the **Tools→SMS Express** menu.

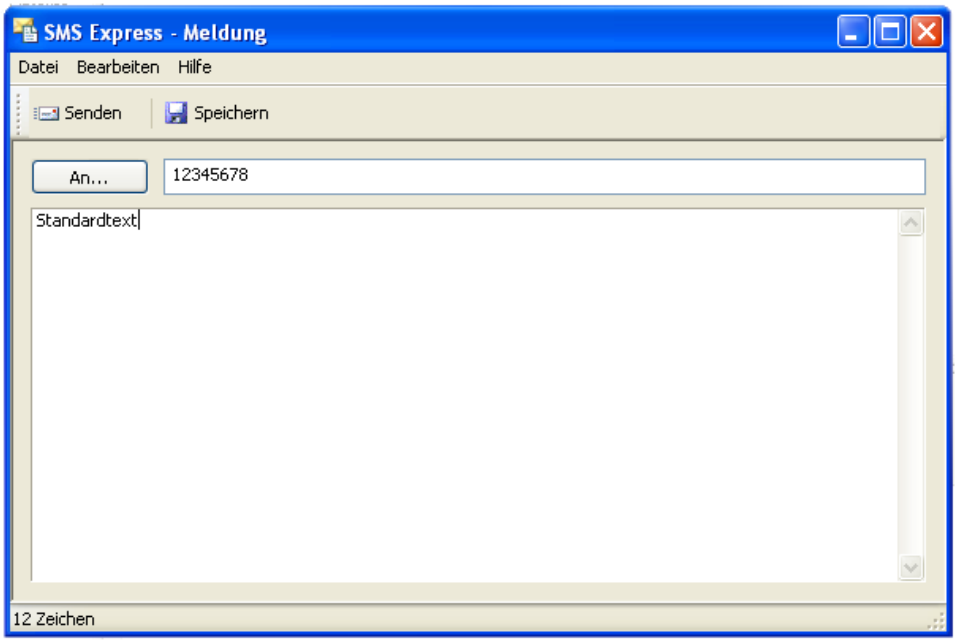


The main window opens now.

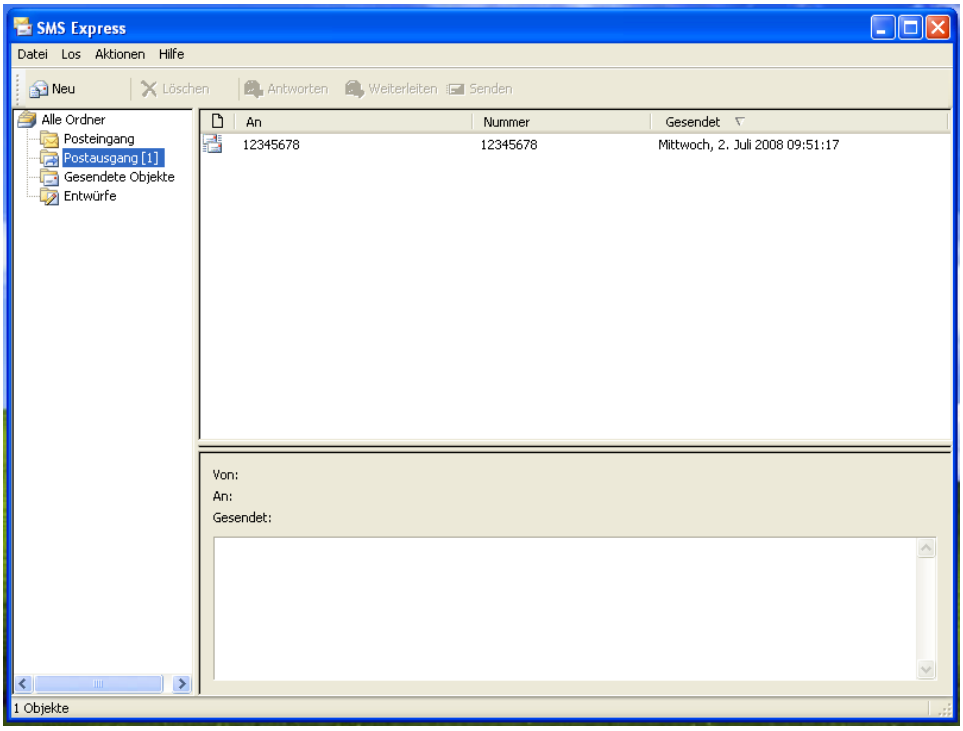
By pushing **New**, you can now edit a short message (SMS) in an additional dialogue window.



Select **To** and add a contact from your phone directory or enter a phone number manually.



As soon as your message was created, you'll click on the **Send** button. The message is now in the message Outbox and will be sent to the specified receiver.



Note:

The design of the SMS Express user interface is similar to the Microsoft® Office Outlook® E-Mail Client design.

6.12 RFID READER (OPTIONAL)

By using the RFID reader, passive RFID TAGS (RFID chip / keycard) are available for automatic system login. The user applies the RFID tag like a key and requires neither user name nor password.

For authentication, the keycard or the RFID chip are held in front of the position highlighted in the figure. The information from your keycard or RFID chip is read and evaluated by the device. This way, access rights of persons, e.g. with respect to a certain work area or job can be controlled.

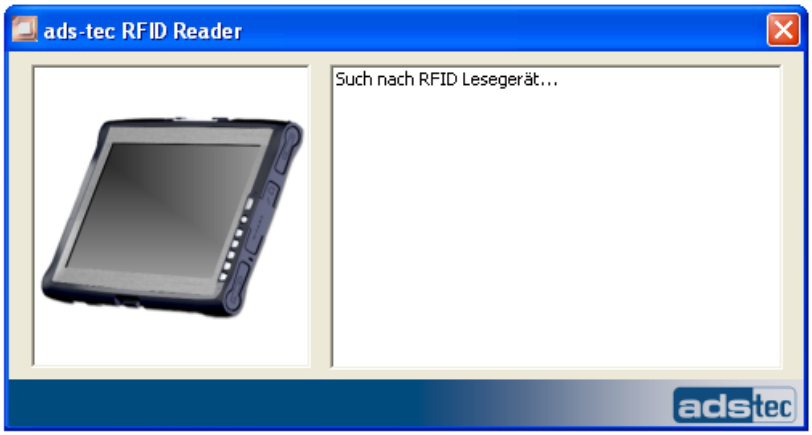
The Mifare technology is used in the TT13 device. The frequency used in this case is 13.56 MHz.

(Keycard authentication)

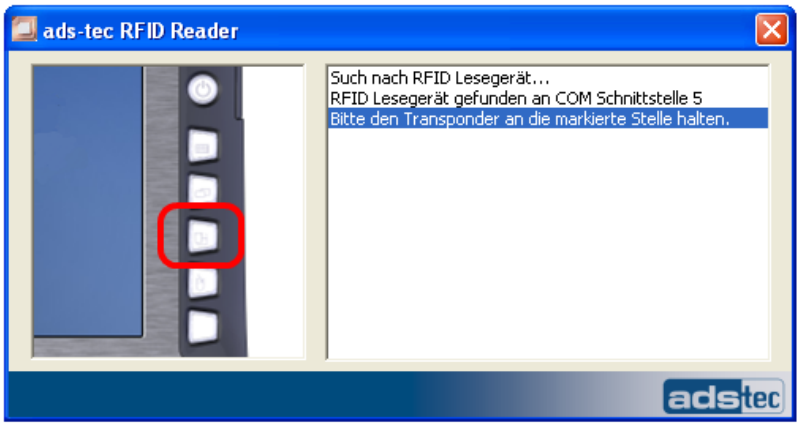
(RFID chip authentication)

ADS-TEC RFID-READER TOOL

The RFID reader can be controlled via the integrated "ads-tec RFID-Reader" software. The application communicates with the RFID reader of the TT13 device via the serial interface. This application is configured automatically, i.e. when the program is started, all COM ports are searched for the serial interface of the RFID reader.



If the RFID reader was located, a figure showing in front of which area the keycard / RFID chip must be held, is displayed.


ads-tec RFID Reader
Such nach RFID Lesegerät...
RFID Lesegerät gefunden an COM Schnittstelle 5
Bitte den Transponder an die markierte Stelle halten.
adstec

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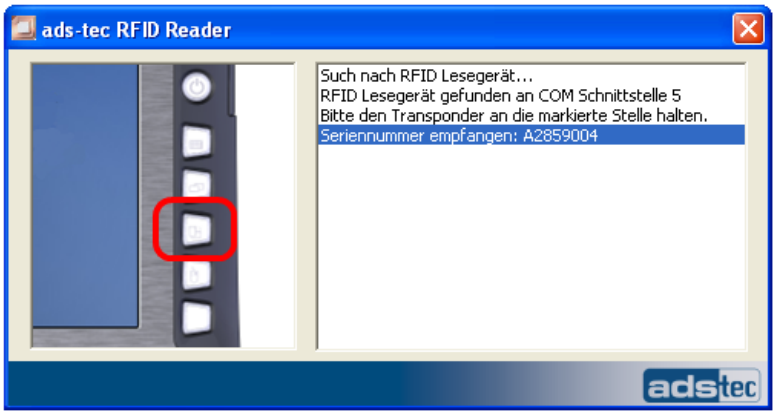
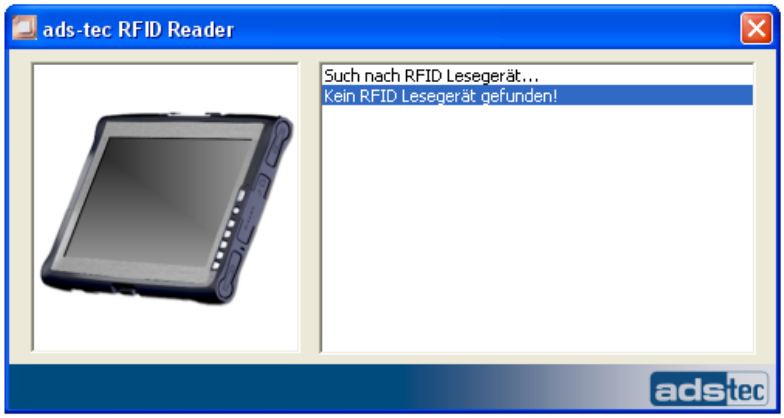
Once the authentication succeeded, the serial numbers received will be output.


ads-tec RFID Reader
Such nach RFID Lesegerät...
RFID Lesegerät gefunden an COM Schnittstelle 5
Bitte den Transponder an die markierte Stelle halten.
Seriennummer empfangen: A2859004
adstec

If no RFID reader was located, a message is output.



This application supports German and English as languages. You can change the language via the "Rfid.ini" file by entering either "LanguageId = DE" or "LanguageId = EN".

6.13 CAMERA (OPTIONAL)

The integrated camera gives the opportunity of recording photographic or video data. The camera has the following characteristics:

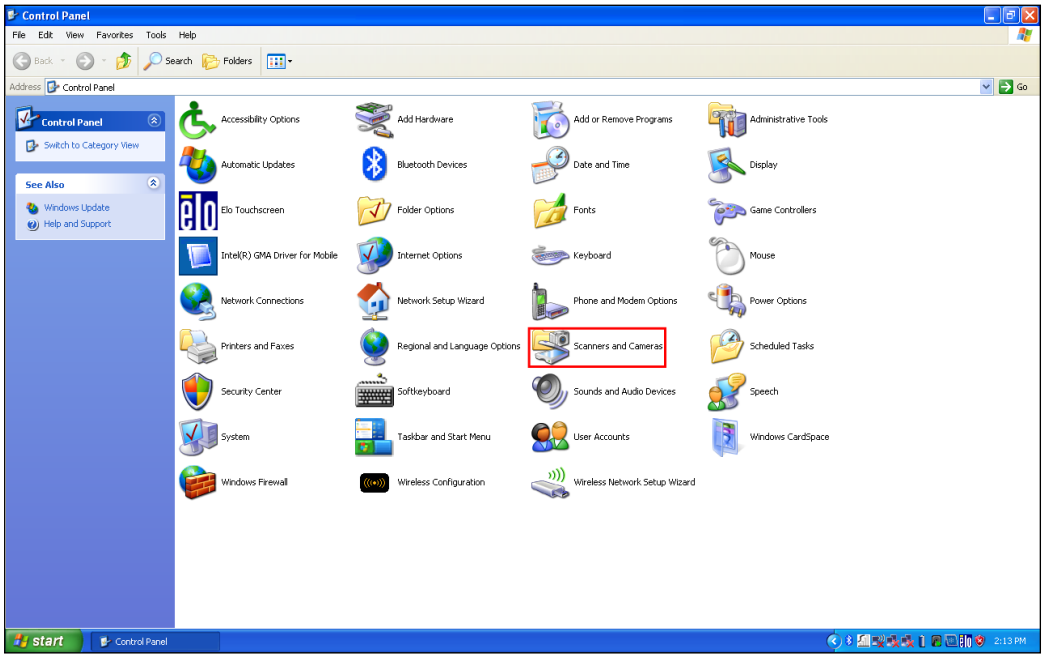
Optical resolution:	1/3.2 inch
Pixel size:	2.8 um
Max. frame rate:	15fps @ UXGA
Effective resolution:	1600 x 1200 UXGA (Format: 4:3) / 2 megapixels
Auto focus:	AF

CAMERA MODULE ACTIVATION

Open the Control Panel of your operating system by using the path:

Start → Control panel

Now start the **Scanner and camera wizard**.

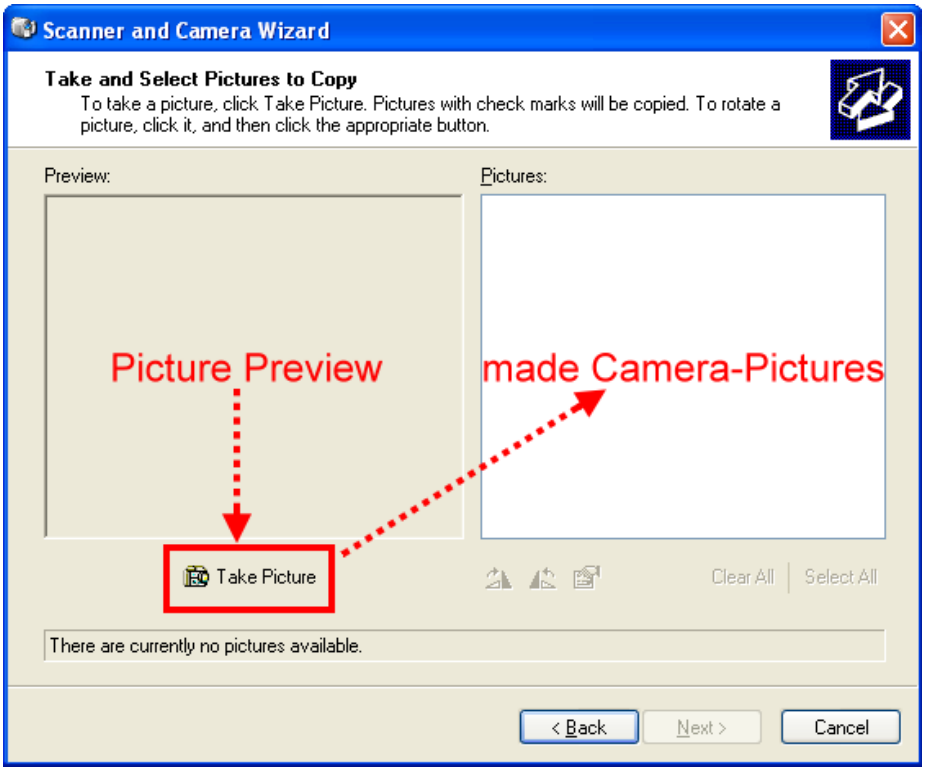


Start the **Scanner and camera wizard** by clicking on the camera icon. Confirm the message shown by clicking on **Next**.

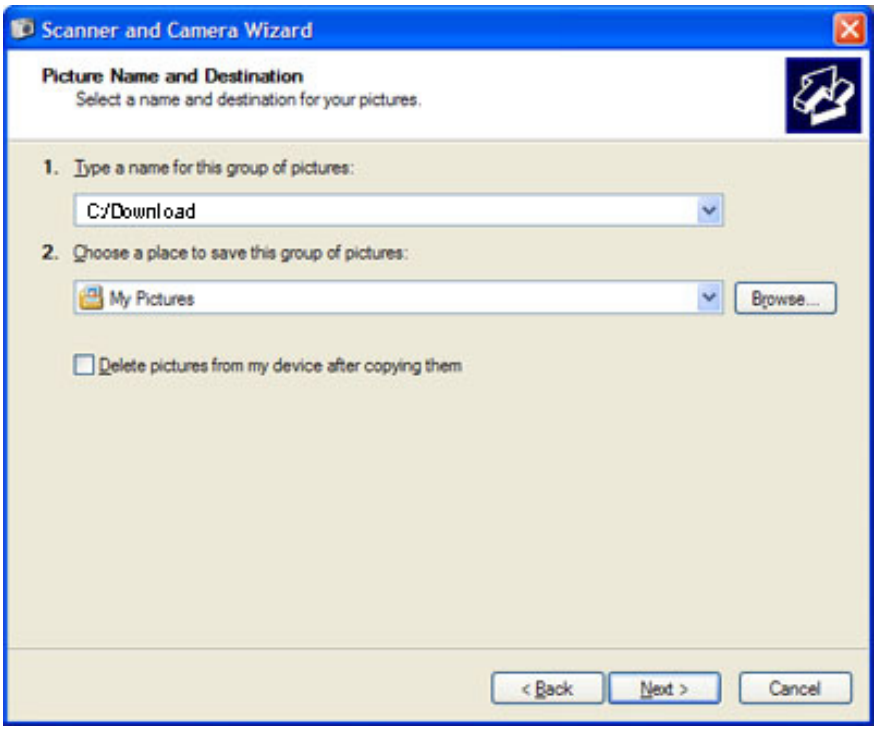
Scanner and Camera Wizard
Welcome to the Scanner and Camera Wizard
AVEO USB 2.0 PC Camera
This wizard helps you copy pictures from your camera, scanner, or other device to your computer, your network, or the Web.
To continue, click Next.
< Back
Next >
Cancel

In the following dialogue window, a picture preview, which allows you to take a photo, will appear on the left-hand side. Once the camera has automatically focussed on the selected object, the photo can be created by pushing the **Take photo** button.

Then click on **Next.**


Scanner and Camera Wizard
Take and Select Pictures to Copy
To take a picture, click Take Picture. Pictures with check marks will be copied. To rotate a picture, click it, and then click the appropriate button.
Preview:
Pictures:
Picture Preview
made Camera-Pictures
Take Picture
Clear All
Select All
There are currently no pictures available.
< Back
Next >
Cancel

Select a suitable name and storage location in the following dialogue window.


Scanner and Camera Wizard
Picture Name and Destination
Select a name and destination for your pictures.
1. Type a name for this group of pictures:
C:/Download
2. Choose a place to save this group of pictures:
My Pictures
Browse...
Delete pictures from my device after copying them
< Back
Next >
Cancel

Confirm this with **Finish**.

Scanner and Camera Wizard
Completing the Scanner and Camera Wizard
1 picture(s) were copied.
To see your pictures on your computer or network, click the location below:
C:\Download
To close this wizard and see your pictures, click Finish.
< Back
Finish
Cancel

6.14 SOFT KEYBOARD

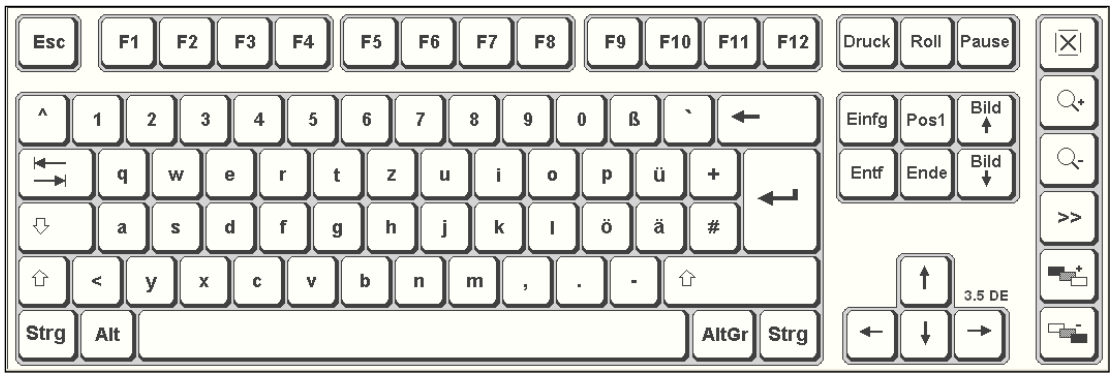
By using the soft keyboard, data can be entered via the touchscreen like with an external keyboard.

Note:

The soft keyboard of the TT13 device can be delivered in 25 languages. Depending on the selected language, the soft keyboard representation and function may vary. Basic functions are identical in all languages. The following languages are available:

German / English (US) / English (UK) / French / Italian / Spanish / Portuguese / Finnish / Turkish / Danish/ Swedish / Japanese / Korean / Greek / Czech / Polish / Romanian / Russian / Serbian / Croatian / Hungarian / Dutch / Slovakian / Slowenian / Bulgarian

DEFAULT VIEW:



HOW TO OPERATE THE SOFT KEYBOARD FROM VERSION 3.11:

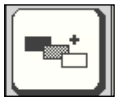
Activate and deactivate the soft keyboard for letter/character input using the touchscreen

Deactivate the soft keyboard

Soft keyboard representation, zoom in

Soft keyboard representation, zoom out

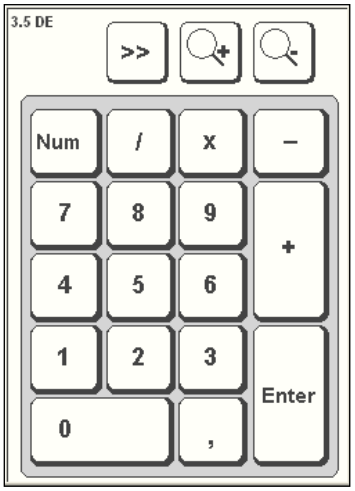
Switch to numeric key pad representation



Increase the soft keyboard transparency

Decrease the soft keyboard transparency

NUMERIC KEY-PAD VIEW:



Switch to representation of the function-key bar

Note:
Continuing Information to the Softkeyboard can be taken from the Softkeyboard User Manual.

FUNCTION-KEY BAR VIEW:

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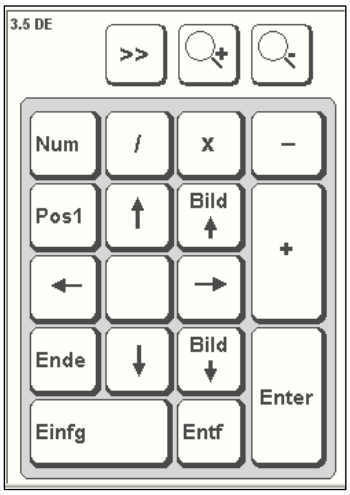


Note:

If a function is to be activated, which requires pressing two keys at the same time (e.g. Alt + F4), these keys have to be pushed one after another at the soft keyboard, and the special keys Shift, Alt and Ctrl must always be pushed first.

Due to differences in programming of a large variety of softwares, we cannot ensure that the soft keyboard works properly with all softwares.

When deactivating the soft keyboard, the previously active state (alphanumeric / numeric keys or function keys) will be stored and will be displayed when re-activating the keyboard.

7 ACCESSORIES

7.1 DVD DRIVE / EXTERNAL TYPE (OPTIONAL

CONNECTION

The DVD drive can be connected to the TT13 device by using the USB interface.

DRIVER INSTALLATION

Required drivers will be installed automatically, as soon as the DVD drive is connected with the USB interface.

FUNCTIONS

The TT13 device must be switched on to open the drive. After pushing the Eject button, the drawer jumps open and must be pulled out completely. The CD/DVD is now placed with the opening on top of the centre piece and carefully pushed downwards until the disk holder snaps in. Subsequently the drive must be pushed in.

Note:

The drive can also be opened by using a mechanical ejector without any power supply. In order to do this, you'd have to push with a pointed object into the marked opening until the drawer jumps open.

Note:

The DVD drive is of the slim-line drive type.

7.2 LASER PRODUCT SAFETY

This product has been designed and manufactured according to FDA regulations "title 21.CFR. chapter1, subchapter J. based on the Radiation Control for Health and Safety Act of 1968". This product is also classified as a class 1 laser product. There is no hazardous invisible laser radiation during operation, because invisible laser radiation emitted inside of this product is completely confined in the protective housings.

The label required by this regulation is shown below.

Caution:
Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

Optical pickup

Type	: TOP1100S
Manufacturer	: TopRay Technologies, Inc.
Laser output	: Less than 0.5mW on the lens
Wavelength	: 770-800nm (CD) 645-662nm (DVD)
Standard	: IEC60825-1 : 2001

Caution:
Class 1M visible and invisible laser radiation when open. Do not view directly with optical instruments.

Warning:
Class 1M visible and invisible laser radiation with the cover opened. Do not view directly with optical instruments.

7.3 TRANSPORT CASE

The optionally available transport case features protected transport of the device. By the way the transport case offers the opportunity to store accessories like batteries, power supply and Software.

Exterior view:

Interieur view:

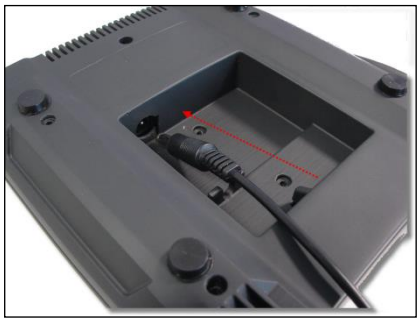
7.4 BATTERY CHARGING STATION C4/TT13

Optionally there is the opportunity to charge the battery of the device by an battery charging station. The battery charging station features two battery slots. This allows you to charge two batteries parallely.

CONNECTING THE 20V DC POWER SUPPLY

Before commisioning the battery charging station, a 20V DC power supply has to be connected. Connect the power supply at the back of the battery charging station.

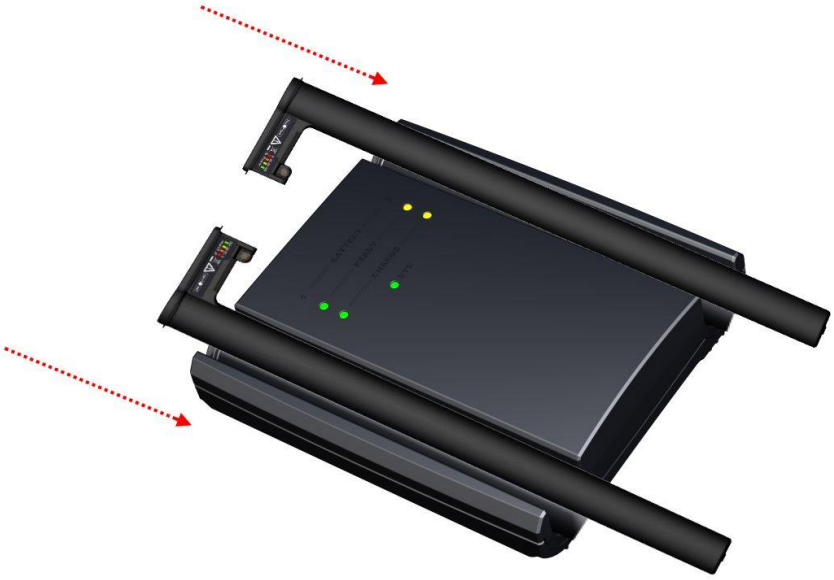
Note:
The supplied power supply of the device can be used for the battery charging station
(20V DC).



Note:
Make sure the system LED is flashing green.

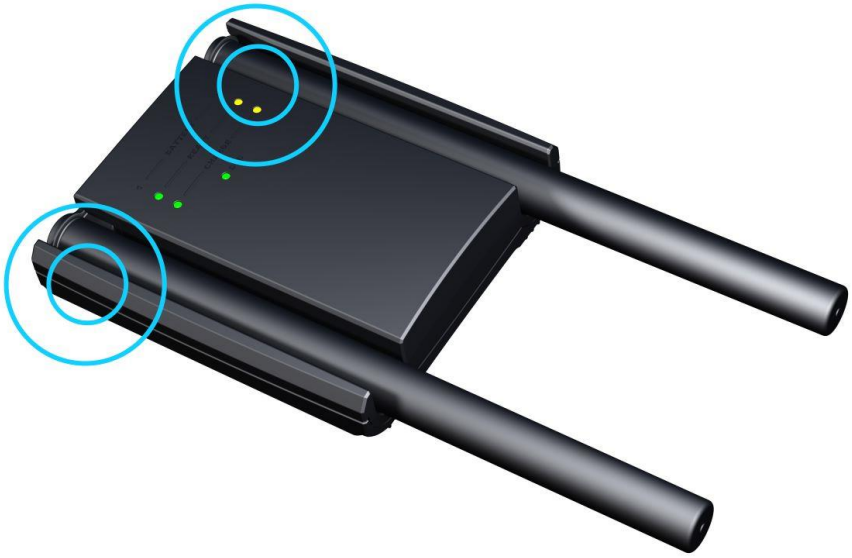
INSERTION OF THE BATTERIES

The batteries need to be placed into the battery slots to get a connection between the pins of the battery charging station and the battery.



Note:

If the battery is placed correctly into the battery charging station a signal tune will sound and the charging process starts. If the battery gets removed a signal tune is sounding too.



LED STATUS DISPLAY

During operation, different system activities will be displayed.

READY-LED DIPLAY	BEHAVIOR	DESCRIPTION
	-	No battery inserted
	static	battery completely charged
	static	battery is defective
CHARGE-LED DISPLAY		
	-	battery is not charging
	flashing	battery is charging
SYS-LED DISPLAY		
-		device is not connected via power supply (power supply/battery)
	static	device is connected to a power supply(power supply/ battery) and powered on
	static	device is not ready / defective power supply

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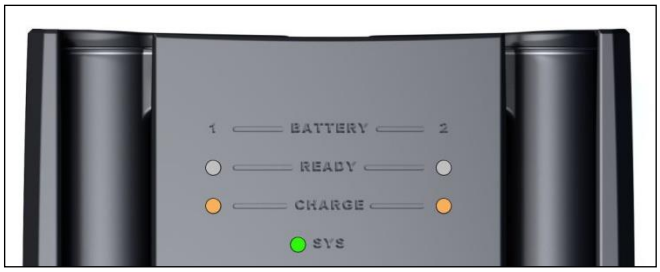
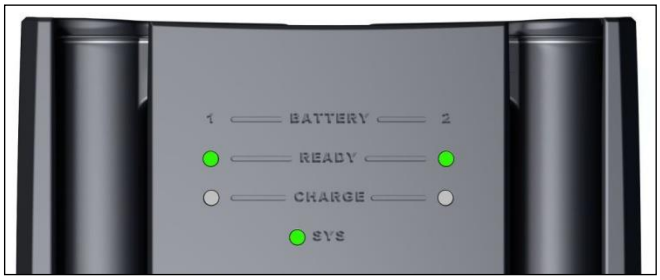
PICTOGRAPHIC ILLUSTRATION

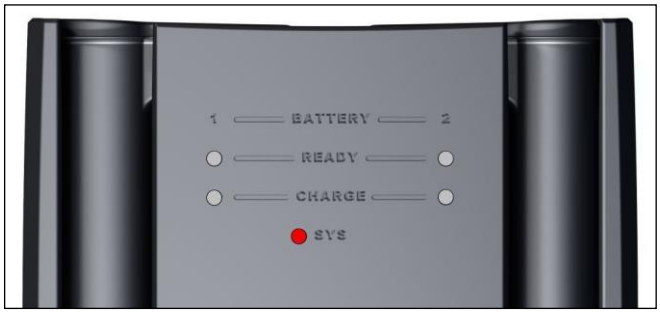
Battery is charging



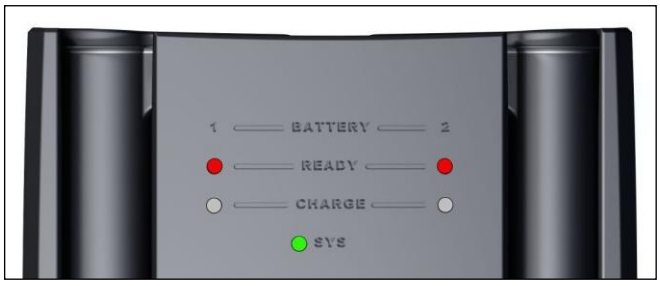
Battery completely charged



Device is not ready / Defective power supply



Battery defective



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7.5 Substitution Power Supply

Optional a substitution power supply for operating the device is available.

7.6 Car Power Supply

Optional a car power supply for the device is available. The device can be comfortably supplied with power in vehicles.

7.7 Substitution-Battery

Optional a substitution battery for operation is available.

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7.8 TT13 MECHANICAL DOCKING ADAPTER

The available TT13 Docking offers in combination with the Table Stand -/ Wall bracket a stable mounting solution for every kind of location.

Via the Docking-Connector on the backside, the device can be connected to a Docking-Station.

The Docking is available in two different types. The first layout can only be used as a attachment for the device. The second layout offers a Docking Connector which is able to transfer data to the interface of the Docking Station.

MOUNTING THE DEVICE TO THE DOCKING

1) The Device needs to be placed on the red marked area behind the turquoise marked area.

2) The Device has to be pressed onto the Docking. The Device should engage perceptible.

REMOVE THE DEVICE FROM THE DOCKING

1) Press turquoise coloured unlocking downwards and hold it this way

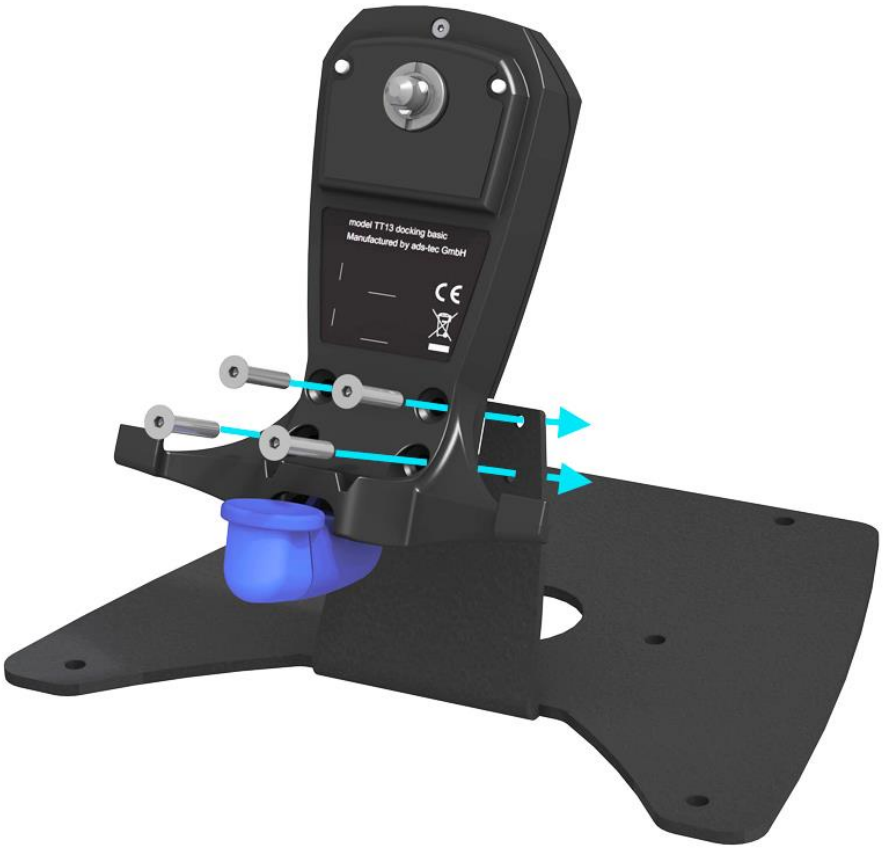
2) Bend the device forwards

3) Release the device upwards and remove it from the Docking.

The shown Docking-Solution displays the mechanical Engaging. A closable Docking-Solution is also available.

7.9 TABLE STAND

The available TT13 Docking offers in combination with the Table Stand -/ Wall bracket a stable mounting solution for every kind of location.



Mount the Docking via the supplied M5x30-8.8 SW Inbus screws to the Table Stand.

7.10 WALL BRACKET

The available TT13 Docking offers in combination with the Wall bracket a stable mounting solution for every kind of location.

1) The Wall Bracket needs to be mounted via VESA 75 or 100 to the installation site.

2) The Docking needs to be mounted via the supplied M5x30-8.8 SW Inbus screws to the Wall Bracket.

7.11 SUBSTITUTION PACK OF TOUCH STYLUS

The substitution pack of Touch stylus contains three touch stylus for comfortable handling of the device.

7.12 3 POINT CORD

Optional a 3 Point Cord for mobile Work is available. The 3 Point Cord can be mounted directly onto the device and makes the device to a mobile workstation.

3 x DZ-MECH-33255-0

3 x DZ-MECH-31033-0

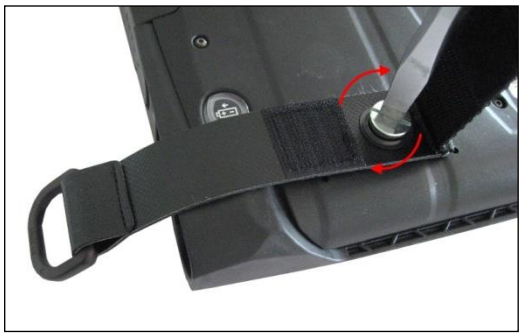
1 x DZ-MECH-31039-0

MOUNTING THE 3 POINT CORD ONTO THE DEVICE

1) First the cord guides need to be mounted. Although the required mounting possibility for left and right handers has to be choosen.

Right handed operation: Choose red marking in picture
Left handed operation: Choose white marking in picture

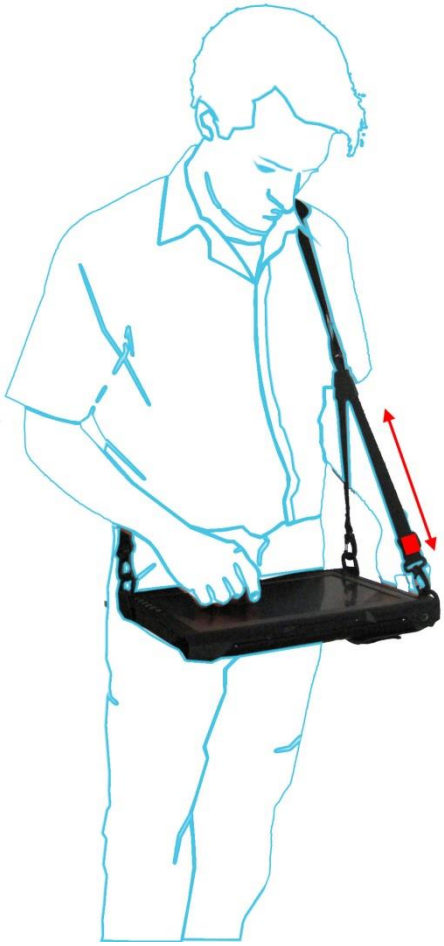
2) Mount the screws as shown in the picture to marked positions.



Note:
Tighten the screws with max. 120 Ncm. The Cords should be movable but without loosening the screws.

MOUNTED VIEW FOR RIGHT HANDED OPERATION

3) The Cord can be added via the carabine intro the Cord guides. The Device is prepared for mobile operation.



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7.13 HAND STRAP

Alternative to the 3 Point Cord, a Hand Strap for mobile work is available. The Hand-Strap can be mounted directly to the device and makes it to a mobile workstation.

2 x DZ-MECH-33255-0

1 x DZ-MECH-31045-0

MOUTNING THE HAND STRAPS TO THE DEVICE

1) The Hand Strap has to be mounted at the marked positions

2) Mount the Hand Strap as shown in the picture.

Note:
Tighten the screws with max. 120 Ncm..

3) Mounted View of the Hand Strap

7.14 ODU 10POL TO RS232 ADAPTERCABLE 1M

The ODU 10pol. RS232 adapter cable enables the connection of the device via the RS232 interface of the connectable device.

7.15 PROTECTION BEZEL

The optional available protection bezel offers protection against transport damage.

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8 CERTIFICATIONS

8.1 CERTIFICATIONS / TESTS

The TT13 system has the following certifications:

CE compatibility	EN 61000-6-3:2007 Electromagnetive Emission, Klasse B EN 55022:2006 Electromagnetive Emission
	EN 61000-6-2:2005 Electromagnetive Emission EN55024:1998+A1:2001+A2:2003 Electromagnetive Emission
UL/cUL201	USL/CNL E217133
GOST-R certificate	Device complies with standard
WLAN certificates for 802.11 a/b/g	EU countries (ETSI) 2,400 MHz – 2,483.5 MHz 5,150 MHz – 5,350 MHz 5,470 MHz – 5,725 MHz
	USA / Canada (FCC) 2,400 MHz - 2,483.5 MHz 5,150 MHz - 5,350 MHz 5.725 MHz – 5.850 MHz
	Japan 2,400 MHz – 2,483.5 MHz 5,150 MHz – 5,350 MHz 5,470 MHz – 5,725 MHz
	Australia 2,400 MHz – 2,483.5 MHz 5,150 MHz – 5,350 MHz 5,470 MHz – 5,725 MHz Russia 2,400 MHz – 2,483.5 MHz

Note:

A respective conformity declaration for the authority in charge is available at the manufacturer and may be viewed on request.

All connected components, as well as cable connections must also meet these requirements for compliance with the EMC legislation. For this reason, screened bus and LAN cables including screened connectors must be used and installed according to the instructions in this user manual.

8.2 ELECTROMAGNETIC COMPATIBILITY (EMC)

Certificate of acceptance in accordance with the Federal Electromagnetic Compatibility Act in Germany ("EMVG") of 2007 (respectively the EMC Directive no. 2004/108/EC). In accordance with the Federal Electromagnetic Compatibility Act in Germany, this device is authorised to carry the EC conformity sign "CE". Liable party for this conformity declaration is according to para. 5 of the "EMVG" legislation:

ads-tec GmbH
Raiffeisenstrasse 14
D – 70771 Leinfelden – Echterdingen

Information in accordance with "EMVG", para. 3, section (2) 2:

This device complies with the protective requirements according to EN 61000-6-2 and EN 61000-6-4, class A.

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8.3 FCC APPROVAL

Note:

This device complies with part 15 of the FCC Rules [and with RSS-210 of Industry Canada].

Operation is subject to the following two conditions:

This device may not cause harmful interference, and this device must accept any interference received, including interference that may cause undesired operation.

Note:

Changes or modifications made to this equipment not expressly approved by ads-tec GmbH may void the FCC authorization to operate this equipment.

Note:

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case the users will be required to correct the interference at their own expense.

Note:

Radio frequency radiation exposure information:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 0cm between the radiator and your body. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Note:

This Class A digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe A est conforme à la norme NMB-003 du Canada.

9 TECHNICAL DETAILS

9.1 DISPLAY DATA

Display	13.3" TFT, WXGA 1280 x 800 pixels
Display colours	262.144 colours
Touchscreen	Resistive 5-wire touchscreen

9.2 COMPUTER DATA

Processor	Intel Pentium M Yonah ULV 1.06GHz Core Solo 423, Intel ULV 1.2GHz Core Duo (optional)
RAM	1GB DDR2 SO DIMM PC2-5300 2GB DDR2 SO DIMM PC2-5300 (optional)
Chip set	Intel 945 GME
Graphic memory	945 GME Northbridge max. 64 MB shared
Mass storage device	2,5" SATA hard drive with at least 80 GB capacity, external USB DVD drive in a metal housing (optional)
Interfaces	At the base device: 3 x USB 2.0 (of which 1 is mounted recessed in the housing, maximum load for 1 port up to 1.5A)
Network	1x Ethernet (10/100 Mbit RJ45 WAKE on LAN),
Wireless	WLAN 802.11 a/b/g
Slots	1x Express card, wide slot
Sound	2x speakers, 1x microphone, 1x headphone out, 1x microphone in
Camera	2.0 megapixel auto-focus camera module (optional)
Power supply	20V DC +/- 20%
Accumulator	Li-Ion smart-battery accumulator with 14.4V and 32Wh, 2 accumulator slots

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9.3 GENERAL DATA

External dimensions	355 mm x 262 mm x 41 mm (W x H x D)
Weight	approx. 3.0 kg
Protection class	IP 54
Power consumption	24 Watts (typical)
Max. switch-on current	7 Amperes (for 2ms)

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10 SERVICE AND SUPPORT

ads-tec and appointed partner companies offer you comprehensive maintenance and support services, ensuring quick and competent support should you have any questions or concerns with regard to ads-tec products and equipment.

ads-tec products may also be provided and installed by partner companies. Such devices may have customised configurations. Should any questions arise with regard to such specific settings and software installations, please contact the system supplier in question as ads-tec will not be able to reply to such questions.

ads-tec does not provide support services for any device or unit that was not bought directly from ads-tec. In any such case, maintenance and support is provided solely by the partner company that supplied the device or unit.

10.1 ADS-TEC SUPPORT

The ads-tec support team is available for direct clients from Monday to Friday from 08:30 AM to 05:00 PM using the following phone number:

Phone: +49 (0) 7022 2522-202
Fax: +49 (0) 7022 2522-2602
Email: support@ads-tec.de

10.2 COMPANY ADDRESS

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